#### **CURRICULUM VITAE**

Richard Corey MFA, Ph.D.

#### **Address:**

Carnegie Hall
University of Maine
Orono, ME 04469-5711
Richard.R.Corey@maine.edu
http://www.rcorev.com

#### **Education:**

Ph.D. Intermedial Collaborative Practices, University of Maine, 2014 M.F.A. Intermedia, University of Maine, 2011 B.A. Studio Arts, University of Maine, 1995

#### **Professional Experience:**

2021 to Present Director

Department of VEMI

College of Liberal Arts and Sciences, University of Maine

2019 to 2021 Director

Virtual Environment & Multimodal Interaction Laboratory (VEMI Lab)

College of Liberal Arts and Sciences, University of Maine

2015 to Present Associate Graduate Faculty

School of Computing and Information Science

University of Maine

2009 to 2019 Director of Operations

Virtual Environment & Multimodal Interaction Laboratory (VEMI Lab) School of Computing and Information Science, University of Maine

2009-2011 Assistant Professor

Intermedia & Innovative Communication Design

University of Maine

1995 to 2010 President and Founder

Artistek Design, Inc.

2008 to 2009 Graduate Assistant/Lab Manager

Giudice Multimodal Lab

Department of Spatial Information Science and Engineering

2001 to 2003	General Manager
	<b>Anchor Publishing</b>

1997 to 1999 Creative Director and Co-Owner

NetQuarters, Inc.

Professional Services:		
2022	Director of the Department of VEMI University of Maine	
2022	VEMI Lab Public Education Director 1 event and 20 participants	
2021	Director of the Department of VEMI University of Maine	
2021	VEMI Lab Public Education Director 5 events and 100 participants	
2020	Steering Committee for AMRO XR Center Online Communications, AMRO	
2020	VEMI Lab Public Education Director 8 events and 445 participants	
2020	State of Maine COVID-19 Healthcare Innovation Team Online Communications, State of Maine	
2020	UMaine COVID-19 Rapid Innovation Task Force Online Communications, University of Maine	
2020	UMaine COVID-19 Project Management Group Online Communications, University of Maine	
2020	UMaine COVID-19 Technology and Tracking Committee Online Communications, University of Maine System	
2020	Maine CDC Contact Tracing Stakeholder's Committee Online Communications, University of Maine CDC	
2020	VEMI Lab COVID-19 Reopening and Safety Committee Online Communications, Carnegie Hall, UMaine	
2020	COVID-19 Maine Economy Recovery Group	

	Online Communications, State of Maine
2020	COVID-19 Maine Healthcare Committee Online Communications, State of Maine
2019	VEMI Lab Public Education Director 20 events and 305 participants
2018 to 2019	Arctic Research Strategy Team University of Maine and University of New Hampshire
2018	VEMI Lab Public Education Director 56 events and 471 participants
2017 to 2019	Faculty Associate Center on Aging University of Maine
2017	Research Advisor/ Committee Member Elder Tech Collaborative University of Maine
2017	VEMI Lab Public Education Director 107 events and 1299 participants
2016	VEMI Lab Public Education Director 57 events and 3000 participants
2016	Maine Institute of Spatial Technology Committee University of Maine
2016	Steering Committee for Engaged Black Bear Initiative University of Maine
2016	COS 120 Code Camp Committee University of Maine
2015 to 2016	Technology Advisor Digital Badging Initiative - UMaine
2015	VEMI Lab Public Education Director 61 events and 5164 new participants
2014	VEMI Lab Public Education Director 42 events and 924 new participants

2013 VEMI Lab Public Education Director 27 events and 553 new participants 2013 Lead Negotiator **VEMI Lab Expansion Committee** 2012 VEMI Lab Public Education Director 20 events and 131 new participants 2012 to Present Vice President and Co-Founder Core 5 Incident - A collaborative art consortium 2011 to 2014 Committee Member Innovative Communication Design Program Committee 2011 **VEMI Lab Public Education Director** 14 events and 92 new participants 2011 Co-Curator Without Borders VIII, Lord Hall Gallery, UMaine

2010 VEMI Lab Public Education Director

8 events and 66 new participants

2009 Member Conceptual Building Design Group

Innovative Media Research and Commercialization Center

**Teaching Experience:** 

Fall 2022 Independent Study

Department of VEMI University of Maine

Spring 2022 Independent Study

Department of VEMI University of Maine

Fall 2021 Independent Study

Department of VEMI University of Maine

Fall 2020 Independent Study

School of School of Computing and Information Science

Fall 2019 Honors Directed Study

Honors College University of Maine

Fall 2019 Practical Application of Unity 3D

School of Computing and Information Science

University of Maine

Fall 2019 New Development & Techniques for Future

School of Computing and Information Science

University of Maine

Spring 2019 Exploration of Business Practices with Modern Day Technology

School of Computing and Information Science

University of Maine

Spring 2019 VR Development & Modeling

School of Computing and Information Science

University of Maine

Spring 2019 Data-Driven Decision Making

School of Computing and Information Science

University of Maine

Spring 2019 Future of Technology Industry

School of Computing and Information Science

University of Maine

Fall 2018 Saving Lives in Augmented Reality

School of Computing and Information Science

University of Maine

Fall 2018 Selective Std Spatial Information Engineering

Spatial Informatics University of Maine

Fall 2018 Unity Development for Research

School of Computing and Information Science – Spatial Informatics

University of Maine

Fall 2018 Human Related VR Technology

School of Computing and Information Science

Spring 2018 Cultural Impacts of Virtual Worlds

School of Computing and Information Science

University of Maine

Spring 2018 Collaborative Practices

Intermedia Department University of Maine

Summer 2017 UMaine Code Camp

School of Computing and Information Science

University of Maine

Spring 2017 Education Principles in HCI

School of Computing and Information Science

University of Maine

Spring 2017 Human Computer Interaction

School of Computing and Information Science

University of Maine

Fall 2016 Humancentric Data Visualization

School of Computing and Information Science

University of Maine

Fall 2016 Deciphering Technology to the Masses

School of Economics University of Maine

Summer 2016 Information Access Technologies

School of Computing and Information Science

University of Maine

Spring 2016 Collaborative Practices

Intermedia Department University of Maine

Spring 2016 Human Computer Interaction

School of Computing and Information Science

University of Maine

Summer 2015 Topics in Computer Science - Immersive Experiences

School of Computing and Information Science

Summer 2015 Selected Studies in Spatial Information Engineering - Functional

Parameters of VR

School of Computing and Information Science

University of Maine

Spring 2015 Human Computer Interaction

School of Computing and Information Science

University of Maine

Fall 2013 Virtual Reality: Research and Applications

School of Computing and Information Science

University of Maine

Fall 2013 Creative Communications

Innovative Communication Design

University of Maine

Spring 2013 Collaborative Practices

Intermedia Department University of Maine

Fall 2012 Design Concepts

Innovative Communication Design

University of Maine

Fall 2012 Virtual Reality: Research and Applications

School of Computing and Information Science

University of Maine

Spring 2012 Collaborative Practices

Intermedia Department University of Maine

Summer 2009 HTML Foundation of the Web

New Media Department University of Maine

**Grants and Contracts:** 

2021 UMaine, Alton '38 and Adelaide Hamm Campus Activity Fund, "Rapid

Research Week" (N.A. Giudice, UMaine (PI) with R.R. Corey, UMaine

(Co-PI), G. Beals, UMaine (Co-PI), R. Perry, UMaine (Co-PI)).

2020 UMaine/NU AI, "Combining Real-Time Deep Learning and

Human-Vehicle Collaboration Techniques in Autonomous Vehicles to

	(PI) with R.R. Corey, UMaine (Co-PI), G. Beals, UMaine (Co-PI), X. Lin, Northeastern University (Co-PI), and M. Sun, Northeastern University (Co-PI).
2020	NSF, "Development of a Multimodal Interface for improving independence of Blind and Visually-Impaired people"; (R.R. Corey, UMaine PI; with H.P. Palani (PI) and N.A. Giudice, Unar Labs)
2020	TIDC, "Jetport Automated Shuttle: Demonstration for Durability and Safety"; (J. Rubin, UMaine (PI) with R.R. Corey, UMaine(Co-PI), N.A. Giudice, UMaine (Co-PI), K. Ballingall, UMaine (Co-PI), and A. Shirazi, UMaine (Co-PI)).
2020	NIH, "Development of a visual-to-tactile conversion system for automating tactile graphic generation process"; (R.R. Corey, UMaine(PI), with Palani, Hari Prasath (PI), UNAR Labs).
2019	NSF, "Improving user trust of autonomous vehicles through human-vehicle collaboration"; (N.A. Giudice, UMaine (PI) and R.R. Corey, UMaine).
2019	NSF, "Development of a Multimodal Interface for improving independence of Blind and Visually-Impaired people"; (R.R. Corey, UMaine PI; with H.P. Palani (PI) and N.A. Giudice, Unar Labs).
2018	NEH, "Preservation and Access Research and Development"; Accessible Civil Rights Heritage Proposal; (N.A. Giudice, UMaine PI: with R.R. Corey, (UMaine) and M. Williams (PI): J. Bell, Dartmouth College).
2018	NSF, "A Remote Multimodal Learning Environment to Increase Graphical Information Access for Blind and Visually Impaired students"; (N.A. Giudice, (PI); with J.K. Dimmel, UMaine; and S.A. Doore, Bowdoin College).
2018	MTI grant, "Augmented Reality Standardized Patient Simulator"; (N.A. Giudice, UMaine (co-PI) with R.R. Corey; and Zephyrus Simulation)
2017	NIH, "Roboglasse® electronic travel aid with hands free obstacle avoidance for blind and vision impaired users"; (N.A. Giudice, UMaine (PI); with Fauxsee Innovations LLC., (PI), Little Rock, AR).
2017	UMaine Aging Prototype Proposal "Commercializing Smart Shoe and Smart Cane", developing medical technology for older adults. (R.R. Corey and N.A. Giudice, Co-PI; with A. Abedi (PI)).

Assist Older and Visually Impaired Passengers"; (N.A. Giudice, UMaine

2017	UMaine Aging Prototype Proposal "Compensatory Augmentations for Assistive Technology to Commercialize Safe and Efficient Navigation", developing navigation assistance software (R.R. Corey, N.A. Giudice, Co-PI (PI))
2017	UMaine Aging Prototype Proposal "Indoor Navigation for Older Adults: Commercialization White Paper", developing indoor navigation technology (R.R. Corey, N.A. Giudice, PI; with A. Abedi)
2016	NEH Office of Preservation and Access, tier 1 Research and Development grant: "Semantic Annotation Tool"; (VEMI service project), developing the UI for an open source video annotation tool providing BVI people access to visually-based media clips (R.R. Corey and N.A. Giudice, UMaine consultants; with Mark Williams (pi) and John Bell, Dartmouth)
2015	UMaine Aging Research and Technology Seed Grant, "Improving navigation and independence in older adults using compensatory augmentations". Studying new technology to improve safe and efficient driving and navigation for people over 65. (R.R. Corey, Co-PI; and N.A. Giudice, PI)
2015	UMaine Aging Research and Technology Seed Grant, "Indoor multi-input navigation for the aging population using a hybrid wireless system (iMAP)". Studying low-cost methods for indoor localization and navigation for older adults. (R.R. Corey, Co-PI; with N.A. Giudice; and A. Abedi (PI)
2014	Intermedia Research Grant, University of Maine, Intermedia MFA Program (R.R. Corey, PI)
2012	Graduate Student Government, University of Maine, GSG Grant (R.R. Corey, PI)
2012	R&D Contract 2907-01, Using augmented and virtual reality for indoor visualization on mobile devices (R.R. Corey, Co-PI; and N.A. Giudice, PI; and Majella Global Technologies, Portland, ME)
2011	President's Grant, University of Maine, Office of the President (R.R. Corey, PI; John Bell, Co-PI; and Bethany Engstrom, Co-PI)

2011 Provost's Grant,

University of Maine, Office of the Provost

(R.R. Corey, PI; John Bell, Co-PI; and Bethany Engstrom, Co-PI)

2011 College of Liberal Arts and Sciences Grant,

University of Maine, Office of CLAS

(R.R. Corey, PI; John Bell, Co-PI; and Bethany Engstrom, Co-PI)

2010 Intermedia Research Grant,

University of Maine, Intermedia MFA Program

(R.R. Corey, PI)

2009 Intermedia Equipment Grant,

University of Maine, Intermedia MFA Program

(R.R. Corey, PI)

#### Awards and Honors:

2022 Supervisor of the Year Nominee

University of Maine

2021 Inclusive Design Challenge Semifinalist

U.S. Department of Transportation

2018 University of Maine's NEASEA Supervisor of the Year

2018 NEASEA, Supervisor of the Year Nominee

University of Maine

2012 Industrial Cooperation Award,

University of Maine, DIC

2012 Stage 1 and 2 Winner,

Digital Media+Learning Competition 4,

HASTAC/Mozilla Foundation/MacArthur Foundation

(R.R. Corey, Co-PI; and John Bell, PI)

2003 Best of the Web

Florida Realtors Assoc.

1995 Best in Show

Sculpture at University of Maine

#### Invited Talks, Lectures, and Appearances:

January 2022 Inclusive Design Challenge Virtual Showcase -Presenter

Digital Meeting

October 2021 UMaine and Poland Spring Ideation Conference -Contributer Digital Meeting September 2021 "Self-driving Cars Could Revolutionize Transportation For People With Disabilities. These Researchers Are Trying To Make It Happen". Article, News@Northeastern September 2021 In Machines we Trust, MIT Technology Review podcast "AI In the Driver's seat"- Featured Speaker **Digital Podcast** March 2021 Assistive Technology update podcast: "ATU513 – AVA App Project with Nicholas Giudice and Richard Corey" -Featured Speaker Digital Podcast August 2020 Beyond Zoom: XR for teaching and Research in the COVID-19 Era Program- Featured Speaker **Digital Presentation** June 2020 UMaine Board of Visitors – Presenter **Digital Presentation** October 2018 VEMI Lab: Innovation and Research in Education – Presenter Leonard Hall – University of New England September 2018 VEMI 10 Conference – Master of Ceremony Alumni Hall University of Maine February 2018 Project Design Workshop – Lecturer NMD 306 - New Media University of Maine January 2018 Audience Perception and Language – Lecturer NMD 442 - New Media University of Maine September 2017 Audience Perception and Language - Lecturer NMD 442 – New Media University of Maine December 2016 Maine Spatial Technology – Presenter **Education and Workforce Development Panel** 

November 2016 Audience Perception and Language – Lecturer NMD 442 - New Media University of Maine April 2016 Presentations and Audience Knowledge – Lecturer CIE 413 - Civil Engineering University of Maine Student Driven Work: The VEMI Lab 8 Years Later - Presenter April 2016 University of Maine Alumni Chapter of Southern Maine Fireside Inn, Portland Maine March 2016 VEMI Lab: Here and Now - Presenter Maine Science Festival, Cross Insurance Center, Bangor, ME Presentations and Audience knowledge - Lecturer December 2015 CIE 413 - Civil Engineering University of Maine September 2015 Audience Perception and Language - Lecturer NMD 442 - New Media University of Maine September 2015 History of Virtual Reality - Lecturer NMD 100 - New Media University of Maine May 2015 Audience Perception and Language - Lecturer NMD 442 - New Media University of Maine April 2015 Using Virtual & Augmented Reality to Solve Real Problems - Presenter Paper Days, Wells Conference Center, Orono, ME March 2015 VEMI Lab: Here and Now - Presenter Maine Science Festival, Cross Insurance Center, Bangor, ME April 2014 Intermedial Collaborative Studies - Speaker TEDx, Orono, ME April 2014 Intermedial Collaborative Studies - Speaker GSG Expo, IMRC, University of Maine

April 2014 Student Driven Work: VEMI Lab Six Years Later - Speaker

GSG Expo, IMRC, University of Maine

March 2014 Internet Users and Emerging Patterns - Lecturer

SIE 515 - School of Computing and Information Science

University of Maine

December 2013 Presentations and Audience knowledge - Lecturer

CIE 413 - Civil Engineering

University of Maine

October 2013 Documenting and Archiving your Projects – Speaker

Maine International Conference on the Arts

University of Maine

March 2013 The Internet is Getting Smaller – Lecturer

SIE 515 - School of Computing and Information Science

University of Maine

March 2012 Discussion of Online Interactions – Lecturer

SIE 515 - School of Computing and Information Science

University of Maine

November 2011 Social Media in Business – Speaker

Maine Business School University of Maine

October 2011 Social Media Today – Speaker

Juice Conference, Camden, ME

March 2011 Online Communities and Their Growth – Lecturer

SIE 515 - Spatial Information Science and Engineering

University of Maine

March 2010 Discussion of Online Interactions – Lecturer

SIE 515 - Spatial Information Science and Engineering

University of Maine

#### Student Awards, Fellowships, and Grants:

2016-2017 Toni Kaplan, Undergraduate Research and Creative Activity CLAS

Fellowship "Evaluation of Virtual Reality Simulation as a Supplemental Treatment in Cases of Seasonal Affective Disorder", comparing traditional

	and VR-based mitigation for SAD (R.R. Corey, Co-PI; with N.A. Giudice, PI)
2015-2016	Brenden Peters, Undergraduate Research and Creative Activity CLAS Fellowship "Dynamic Motion Control: Networked Control Software and Expanded Physical Capabilities for Virtual Environment Motion Feedback Devices", focusing on development of software for the VEMI Lab's six-degrees-of-freedom motion platform (R.R. Corey, Co-PI; with N.A. Giudice, PI)
2015-2016	Brenden Peters, Maine Space Grant Consortium (MSGC) fellowship "Dynamic Motion Control: Networked Control Software and Expanded Physical Capabilities for Virtual Environment Motion Feedback Devices", focusing on development of software for the VEMI Lab's six-degrees-of-freedom motion platform (R.R. Corey, Co-PI; with N.A. Giudice, PI)
2015-2016	Scott Richards, Center for Undergraduate Research fellowship "Virtual Reality Exposure Therapy for Veterans with PTSD", platform for creating situationally-specific simulations for the treatment of PTSD (R.R. Corey, Co-PI; with N.A. Giudice, PI)
2014-2015	Allison Goodridge, Center for Undergraduate Research Fellowship "Dynamic Motion Control: Generating Physical Phenomena for Examination of Spatial Cognition and Impulse Response in Virtual Environments" (R.R. Corey, Co-PI; with N.A. Giudice, PI)
2014-2015	Sam Gates, Center for Undergraduate Research Fellowship "Accelerometer for Fall Detection" (R.R. Corey, Co-PI; with N.A. Giudice, PI)
2014-2015	Meghan Hurlburt, Undergraduate Research and Creative Activity CLAS Fellowship "Monitoring Independently Aging Adults With Radio Frequency Indicator Technology: An Inexpensive and Noninvasive Solution for Aging in Place" (R.R. Corey, Co-PI; with N.A. Giudice, PI)
2014-2015	Meghan Hurlburt, Center for Undergraduate Research Fellowship "Using Radio Frequency Indicator Technology as An Inexpensive and Noninvasive Solution for Aging in Place" (R.R. Corey, Co-PI; with N.A. Giudice, PI)
2014-2015	Tim McGrath, Center for Undergraduate Research Fellowship "Development of a Non-Visual Indoor Navigation Assistive Device Using Real-Time Tracking and Multimodal Feedback" (R.R. Corey, Co-PI; with N.A. Giudice, PI)

2014-2015	Brenden Peters, Center for Undergraduate Research Fellowship "A Low-Power Device for Indoor Mapping and Navigation" (R.R. Corey, Co-PI; with N.A. Giudice, PI)
2014-2015	Brenden Peters, Undergraduate Research and Creative Activity CLAS Fellowship "Devices for Indoor Mapping and Augmented Navigation" (R.R. Corey, Co-PI; with N.A. Giudice, PI)
2014-2015	Dustin Sleight, Center for Undergraduate Research Fellowship "Dynamic Motion Control: Generating Physical Phenomena for Examination of Spatial Cognition and Impulse Response in Virtual Environments" (R.R. Corey, Co-PI; with N.A. Giudice, PI)
2013-2014	Sylvia Allain, Undergraduate Research and Creative Activity CLAS Fellowship "Virtual Modeling of Forest Populations in Maine" (R.R. Corey, Co-PI; with N.A. Giudice, PI)
2013-2014	Sylvia Allain, Center for Undergraduate Research Fellowship "Virtual Modeling of Forest Populations in Maine given the Introduction of Invasive Plant Species" ((R.R. Corey, Co-PI; with N.A. Giudice, PI)
2013-2014	Jon Cole, Center for Undergraduate Research Fellowship "Virtual Simulations of Compensatory Techniques for Age-Related Vision Loss" (R.R. Corey, Co-PI; with N.A. Giudice, PI)
2013-2014	Tim McGrath, Center for Undergraduate Research Fellowship "Non-Visual Indoor Navigation Using Three Dimensional Auditory Displays and Sensory Feedback from Mobile Devices" (R.R. Corey, Co-PI; with N.A. Giudice, PI)
2013-2014	Dustin Sleight, Center for Undergraduate Research Fellowship "A Study in Site-Specific Access to Multimodal Interfaces for Geospatial Navigation" (R.R. Corey, Co-PI; with N.A. Giudice, PI)
2013-2014	Dustin Sleight, Undergraduate Research and Creative Activity CLAS Fellowship "Mobile mapping applications: Access to Multimodal Interfaces for Geospatial Navigation" (R.R. Corey, Co-PI; with N.A. Giudice, PI)
2012-2013	Jon Cole, Center for Undergraduate Research Fellowship "Virtual Simulations of Compensatory Techniques for Age-Related Vision

Loss"

(R.R. Corey, Co-PI; with N.A. Giudice, PI)

2011-2012 Jon Cole, Undergraduate Research and Creative Activity

**CLAS** Fellowship

"Virtual simulations of age-related visual impairment"

(R.R. Corey, Co-PI; with N.A. Giudice, PI)

2011-2012 Josh Leger, Undergraduate Research and Creative Activity

**CLAS** Fellowship

"Visual Augmentation for Aging and Navigation"

(R.R. Corey, Co-PI; with N.A. Giudice, PI)

### Mentoring and Leadership:

2021- Present Director for Interdisciplinary Human Technology Interactions

Department of VEMI

2010 - Present VEMI Undergraduate Research and Education Supervisor

20 undergraduate students annually

2022 Top Scholar Advisor

Student: Theodore Erikson

2022 Top Scholar Advisor

Student: Emily Hanscom

2022 Top Scholar Advisor

Student: Anthony Caccese

2021 Top Scholar Advisor

Student: Theodore Erikson

2021 Top Scholar Advisor

Student: Emily Hanscom

2021 Top Scholar Advisor

Student: Anthony Caccese

2020 Top Scholar Advisor

Student: Anthony Caccese

2020 Honors College Advisor

Student: Sophia Crockett-Current

2020 Top Scholar Advisor

	Student: Tian Morrison
2020	Top Scholar Advisor Student: Theodore Erikson
2020	Top Scholar Advisor Student: Emily Hanscom
2019	Top Scholar Advisor Student: Tian Morrison
2019	Top Scholar Advisor Student: Theodore Erikson
2015	Capstone Advisor in Computer Science Students: Samuel Gates, Brenden Peters, & Ethan Porter
2014	Capstone Advisor in Computer Science Students: Jonathan Cole & Meghan Hurlburt
2013	Capstone Mentor in Computer Science Students: Sylvia Allain
2013	Capstone Advisor in New Media Students: Stephen Talbot, Charles Dolloff, and Chris Bryant
2013	Capstone Advisor in Mechanical Engineering Student: Timothy McGrath
2010	Vice President Intermedia Student Organization

# Graduate Supervising, Mentoring, and/or Advising 1+ Semesters in Lab:

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2022-Present	Justin Brown: Ph.D. (Committee)
2021-Present	Justin Hardcastle: Ph.D. (Committee)
2019-Present	Emily Blackwood: Ph.D. (Advisor)
2020-2022	Oisin Biswas: Biomedical Engineering (Committee)
2019-2021	Danial Regan: Ph.D. Chemical and Biological Engineering (Committee)
2018-Present	Paul Fink: Learning to Trust in Autonomous Vehicles
2018-2019	Kaitlyn Haase: Ph.D. Immersive Virtual Haptics (Committee)
2018-2019	Christina LeBlanc: Higher Education
201 <i>6</i> –2018	Samuel Gates: M.S. Spatial Navigation
2016-2018	Kaitlyn Haase: M.S. Assistive Technology and Spatial Navigation
2016-2017	Stacy Doore: Ph.D. Spatial Preposition use in Indoor Scene Descriptions

2015-2019	Emily Blackwood: M.S. Anthropology
2015-2018	Jon Cole: Compensatory Augmentations and VR for Information Visualization.
2015-2017	Kendra Bird: M.S. Anthropology.
2014-2018	Hari Palani: Ph.D. Vibro-audio Interface Testing and Development.
2014-2017	Aaron Boothroyd: M.A. Interdisciplinary Studies (Committee)
2014-2015	Kristin Doherty: M.S. Communications.
2012-2017	Raymond Perry: Augmented and Virtual Reality for Information Visualization.
2011–2013	Hari Palani: M.S. Indoor Navigation with Vibro-audio Interfaces.
2010-2017	Chris Bennett: Spatial Cognition and Functional Equivalence.
2010-2016	Hengshan Li: Spatial Cognition and Indoor Navigation.
2010-2013	Saranya Kesavan: M.S. Visual-spatial Image Conversion.
2010-2012	Shreyans Jain: M.S. Indoor Navigation Spatial Audio Interfaces.
2009-2011	Monoj Kumar Raja: M.S. Vibro-audio Touchscreen Interfaces for Learning.

# **Undergraduate Research Advising 1+ Semesters in Lab:**

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2022-Present	1
2022-Present	Aleigha Morgan: Physics
2022-Present	Ersilda Cako
2022-Present	Samuel Orlando
	Anna Johnson: Biomedical Engineering
2022-Present	Jake Loranger: Biomedical Engineering
2022-Present	Cedric Fahey: Computer Science
2022-Present	Christopher Erbs: Mechanical Engineering
2022-Present	Leah Savage: Communications
2021-Present	Georgia Doore: Ecology & Environmental Studies
2021-Present	Caleb Hendrick: Biomedical Engineering
2021-Present	Darien Orethun: Computer Science
2021-Present	Ainslie Allen: Biomedical Engineering
2021- Present	Henry Kindler: Computer Science
2020-Present	Anthony Caccese: Computer Science
2020-2021	Izzy Topper: Communications & Earth Science
2020-Present	Maher Alsamsam: Biomedical Engineering
2020-Present	Emily Hanscom: Biomedical Engineering
2020-2022	Zane Nygaard: Computer Science
2020-2021	Tian Morrison: Biomedical Engineering
2020-2021	Adan Lawlor: Psychology
2020	Bailey Corless: Biomedical Engineering
2019	Laura Friel: Bowdoin Student
2019	Matthew Donnelly: Bowdoin Student
2019	Rose XI: Bowdoin Student
2019-Present	Roisin Rumsay: Computer Science
2019-Present	Theodore Erikson: Mechanical Engineering Technology
2019-2021	Jessica Holz: Communication Science Disorders
2019-2020	Eric Marshall: Accounting & Finance
2019-2021	Colleen DeMaris: Computer Science

2019-2022	Aubree Nygaard: Computer Science
2018-2021	Isaac Sparks-Willey: Computer Science
2018-2020	Oisin Biswas: Biomedical Engineering
2018-2020	Nathan Brown: Accounting & Finance
2018-2019	Betelhem Abay: Bioengineering
2018-2019	Joanna Howell: Social Work
2018-2019	Anna Webber: Bioengineering
2018-2019	Daniel Lesko: Bioengineering
2018-2019	Coulter Morrill: Kinesiology
2018	Justin Hafner: Kinesiology
2018	Timothy Alholm: Computer Engineering
2018-2020	Adam Farrington: Computer Science
2017-2019	Annie Hepburn: New Media & Social Work
2017-2019	Christina LeBlanc: Secondary Education & English
2017-2020	Maggie Karas: Social Work
2017-2018	Rob Owens: Computer Science
2017	Hanna Karas: New Media
2017-2020	Sophia Crockett-Current: New Media
2017	Todd Hawkins: Computer Science
2016-2020	Walter Rasmussen: Computer Engineering
2016-2017	Tyler Hine: Psychology
2016-2017	Dakoda Brown: Computer Science
2016-2019	Bradley Butler: Psychology
2016-2018	John San Diego: Computer Science
2016-2018	Nicholas Jensen: Psychology
2016	Alex Rizzini: English
2016	Harrison Meagher: Computer Science
2016-2017	Allarie Lever: University Studies
2015-2017	Emily Blackwood: Anthropology
2015–2017	Amy Fortier-Brown: New Media
2015–2016	Ethan Porter: Computer Science
2015–2016	Scott Richards: Computer Science
2015 2010	Brian Hodges: Electrical Engineering
2013-2016	Samuel Gates: Computer Science
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2014–2017	Toni Kaplan: New Media
2014–2016	Brenden Peters: Computer Science
2014–2015	Peter Coleman: New Media
2014–2015	Jake Lavoie: Studio Arts
2014–2015	Clayton Peterson: Computer Science
2014	Samuel Foster: Physics
2013–2014	Sylvia Allain: Computer Science
2013–2015	Meghan Hurlburt: Computer Science
2012–2015	Dustin Sleight: Mechanical Engineering/Theater
2012–2013	Michelle Beauchemin: Engineering Physics
2011–2012	Joshua Leger: Electrical and Computer Engineering

2011–2012	Ashley Suitter: Psychology
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2011–2012	Meghan White: Political Science
2011–2014	Jon Cole: Computer Science
2010–2012	Raymond Perry: Electrical Engineering
2010–2012	Rafael Ramos: Psychology
2010	Joshua Gaylin: MicroBiology
2009–2015	Tim McGrath: Mechanical Engineering
2009-2010	Tim Baker: Mathematics

Piece.

## **High School Interns**

2018-2019 Max Sennett
Summer 2018 Nathanial Batson
Summer 2018 Lily Millard
2018-2019 Theodore Erikson
2018-2019 Roisin Rumsey
Summer 2018 Tyler Delargy
Summer 2017 David Levoy
Summer 2017 Benjamin Rayhill
Summer 2016 Reid Hastings

Media and Public Outreach:	
2022	Bangor Daily News, 1/25/22 "Self-driving vehicles are our future. UMaine is showing us how." News Piece.
2021	Bangor Daily News, 2/2/21 "App from VEMI Lab group will help people with visual impairments, seniors enjoy ride sharing with self-driving cars" News Piece.
2021	FOX 22 WFVX, 2/1/21 "Self-driving car app is coming to Maine" News Piece.
2021	News Medical Life Sciences, 1/29/21 "Smartphone app will people with disabilities and seniors to use autonomous vehicles" News Piece.
2021	Science Magazine, 1/29/21 "App Will Help Visually Impaired, Seniors Enjoy Ride-Sharing With Self-Driving Cars" News Piece.
2020	Penobscot Bay Pilot, 10/9/20 "Five research teams address topics important to Maine people" News

2020	Medical Press, 4/15/20. "Researchers find efficacy in new digital map in aiding visually impaired" News Piece.
2020	News Center Maine, 3/27/20. "New app created in Maine aims to reduce opioid deaths" News/Video Piece.
2020	Bangor Daily News, 3/26/20. "New mobile app is the latest tool to help Mainers fight opioid overdoses" News Piece.
2020	WABI TV, 1/17/20. "VEMI lab hosts fifth annual 'Rapid Research Week" News/Video Piece.
2020	FOX 22 WFVX, 1/17/20. "University of Maine's VEMI Lab wraps up Rapid Research week 2020" News Piece.
2019	UMaine News, 10/7/19 "VEMI Lab receives \$500,000 NSF grant to research Autonomous Vehicles" News Piece.
2019	WVII ABC7, 8/26/19. "UMaine's VEMI Lab receives \$500,000 grant to research fully self-driving vehicle." News/Video Piece.
2019	UMaine News, 8/23/19. "UMaine research project focuses on improving trust in autonomous vehicles using human-vehicle collaboration." News Piece.
2019	Bowdoin News, 7/22/19. "Virtual Reality Opens Up New Worlds at Bowdoin." News Piece.
2018	Umaine News, 11/28/18. "Social Media Spotlight: Emily Blackwood." News Piece.
2018	Umaine News, 11/15/18. "Social Media Spotlight: Justin Hafner." News Piece.
2018	WABI TV5, 09/21/2018. "VEMI Lab Celebrates 10 <sup>th</sup> Anniversary" News/Video Piece.
2018	Bowdoin College, 11/28/18. "Expanding Access to STEM." Online news article.

2018	The Maine Edge, 8/21/18. "Umaine receives National Science Foundation grant." News Piece.
2017	Maine Alumni Magazine, Spring 2017 "Eye-Opening Education." Magazine Article.
2016	WABI TV5, 5/24/16 Virtual Reality in Maine: Part 2. News/Video Piece
2016	WABI TV5, 5/23/16 Virtual Reality in Maine: Part 1. News/Video Piece
2016	UMaine Today, News 5/06/16 WLBZ reports on sensor technology research to help older adults stay at home. News piece.
2016	VRNews Blog, news 4/20/16 Virtual Terrain Simulator is a VR Peripheral the Replicates Ground Surfaces. News piece.
2016	SCIS, Media 4/17/16 Campus Organization Tours VEMI Lab. News piece.
2016	SCIS, Media 3/28/16 Four VEMI Lab Papers Accepted for 2016 Human-Computer Interaction International Conference. News piece.
2016	SCIS, Media 3/23/16 SCIS Students Continue STEM Outreach. News piece.
2016	Maine Science Festival, News 3/19/16 VEMI Lab Live News piece.
2016	SCIS, Media 2/15/16 VEMI Continues Outreach to Inspire Maine Kids with STEM Education. News piece.
2016	Lincoln Academy Blog, News 2/11/16 Virtual Reality: Our Future World? Teen Science Cafe. News piece.
2015	Portland Press Herald, 11/26/15 Dartmouth, UMaine aim to help scholars study historic films. News piece.
2015	UMaine Today, News 11/21/15

	VEMI Lab cited in Dartmouth News Article. News piece.
2015	Dartmouth Now 11/18/15 Mark Williams and Media Ecology Project Receive NEH Grant
2015	WFVX, 10/21/15 Back to the Future Day. News piece.
2015	King.Sentate.Gov, 8/13/15 At Telehealth Roundtable, King Calls for Increased Investment and Federal Support for Telemedicine. News piece.
2015	WABI TV5, 8/13/15 UMaine Hosts Telehealth Conference. News piece.
2015	WVII ABC 7, 8/13/15 Senator King Calls for More Telemedicine; Asking for Regulatory Change and Broadband Expansion. News piece.
2015	MPBN, 8/13/15 Sen. King Calls for More Investment in Telemedicine. News piece.
2015	University of Maine: View Book, 8/1/15 Explore Frontiers at UMaine
2015	WABI-TV 5, 6/26/15 Retirees: These gadgets will help you stay in your home longer. News piece.
2015	Portland Monthly: Tomorrowland, 6/1/15 VEMI Lab Igniting imaginations. News piece.
2015	WABI-TV 5, 3/21/15 First-Ever Maine Science Festival in Bangor. News piece.
2015	WABI-TV 5, 3/5/15 UMaine Undergrads Assembling Technology to Enhance Virtual Reality Programs. News piece.
2015	Bangor Daily News, 2/19/15 A Republican and Democrat agree: Strong UMaine strengthens state's future

2014	Bangor Daily News, 11/6/14 UMaine showcases cross-disciplinary aging research and technology. News piece.
2014	WFVX FOX 22, 10/2/14 VEMI Lab Showcases Updated Virtual & Touch Devices. News piece.
2014	Maine Department of Labor Program That Prepares Students Who Are Blind or Visually Impaired for College Highlights Opportunity, Teaches Independence. News piece.
2014	Senator George J. Mitchell Center for Sustainability Solutions, 5/19/14 High-tech Wind Farm Simulation Awaits Monhegan Island Tourists
2014	The Maine Campus, 3/24/14 UMaine VEMI Lab combines research, technology, and friendship. Story.
2014	WABI TV5, 2/13/14 UMaine Students Show Off "Virtual Reality". News piece.
2014	WVII ABC 7, 2/13/14 VEMI Lab on UMaine Campus Holds Open House. News piece.
2013	Bangor Daily News, 2/8/13 UMaine researchers working to shape the future of virtual sight. Story.
2013	WFVX Bangor, 2/6/13 Committee Looks to UMaine Students for Workforce Preparedness. Coverage.
2013	The Maine Campus, 2/3/13 'Knick'd – A Culinary Incident' a dining oddity by UMaine grads
2012	UMaine Today, Winter Space Travel: How can virtual reality inform our navigation of real world environments? Cover story.
2012	UMaine Today, Winter Forward Thinking: UMaine alum embraces the challenge of being first
2012	The Free Press, 10/10/12 Art Current: See Touch Hear at Asymmetrick Arts
2012	UMaine College of Liberal Arts and Sciences LookBook annual publication. News piece.

The Maine Campus
Get plugged in: UMaine virtual reality lab creates something from nothing.
News piece.

UMaine Today, Fall
Culinary Incident at UMaine . News piece.

College of Liberal Arts and Sciences Annual
Culinary Incident at UMaine. Story.

UMaine College of Engineering Magazine
VEMI Lab featured in a news article.

#### **Creative Exhibitions:**

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May 2022	Rapid Research Week Carnegie Hall, University of Maine
	Carnegie Haif, Oniversity of Maine
May 2022	VEMI Lab Graduation Ceremony Carnegie Hall, University of Maine
	Carnegie Haif, Oniversity of Maine
May 2021	VEMI Lab Graduation Ceremony
	Online, Carnegie Hall, University of Maine
May 2020	VEMI Lab Graduation Ceremony
	Online, Carnegie Hall, University of Maine
Jan. 2020	Rapid Research Week
	Carnegie Hall, University of Maine
Jun. 2018	VEMI Family BBQ
	Carnegie Hall, University of Maine
Jan. 2019	Rapid Research Week
	Carnegie Hall, University of Maine
Sept. 2018	VEMI10: Working in Emerging Technology Conference
	Buchanan Alumni House, University of Maine
Jan. 2018	Rapid Research Week
	Carnegie Hall, University of Maine
Oct. 2017	"VEMI Lab Halloween" (augmented reality)
	Carnegie Hall, University of Maine

Aug. 2015	"Invasive Species" (a culinary incident / installation), Center for Maine Contemporary Arts, Rockland, ME
Mar. 2015	"VEMI Education Exhibition" (a community event), Maine Science Festival, Bangor, ME
Oct. 2014	"VEMI Open House II" (augmented reality) Carnegie Hall, University of Maine
Aug. 2014	"Invasive Species" (a culinary incident), IMRC Black Box, University of Maine
Apr. 2014	"Collaborative Research" (installation), GSG Expo, IMRC, University of Maine
Jan. 2014	"VEMI Open House" (augmented reality) Carnegie Hall, University of Maine
Jan. 2013	"Knick'd" (a culinary incident), Lord Hall Gallery, University of Maine
Sep. 2012	"Spitting into the Wind" (haptic installation), Asymmetrick Arts Gallery, Rockland, ME
Sep. 2011	"Tugging on Superman's Cape" (installation), Lord Hall Gallery, University of Maine
Apr. 2011	"The Gorsedd" (a culinary incident), Corey Daniels Gallery, Wells, ME
Dec. 2010	"The Gorsedd" (a culinary incident), Pavilion Theatre, University of Maine
Sep. 2010	"Gretel and Hansel" (illustrations), Without Borders, Lord Hall, University of Maine
May. 2010	"An Evening with Professor Enki" (a culinary incident), Lord Hall Gallery, University of Maine
Dec. 2009	"5 Cubes" (haptic installation), Class Action Show, Bangor, ME
Apr. 2009	"Crispy Jello" (light installation), GSG Expo, ESRB, University of Maine

Feb. 2009	"My Squishy" (haptic installation), Open House, Lord Hall, University of Maine
Feb. 2009	"Strange Narrative" (sound, sculpture, and light), Campus Mall, University of Maine
Dec. 2008	"Sentinels" (light installation), Freese Pop Show, Bangor, ME
Oct. 2008	Stairdivarius (interactive installation), Carnegie Hall, University of Maine
May. 2008	"Wild Squirrel" (painting), Cardelli Private Collection, Brunswick, ME

#### **Publications and Presentations:**

Herbert, V., Perry, R., LeBlanc, C., Haase, K., Corey, R.R., Giudice, N.A., & Howell, C. (Pending). Clinical Simulation in Nursing: Developing a Smartphone App with Augmented Reality to Support Virtual Learning of Nursing Students on Heart Failure. Research Paper.

Teisl, M.F., Noblet, C.L., Corey, R.R., and Giudice, N.A. (2018). Seeing clearly in a virtual reality: Tourist reactions to an offshore wind project. Applied Energy.

Noblet, C., Teisl, M.F., Kashkooli, M., Teisl, B., Corey, R.R., & Giudice, N.A. (2016). Potential Tourism Impacts of an Offshore Wind Farm Near Monhegan Island. Technical Report for the University of Maine's School of Economics and the Senator George J. Mitchell Center for Sustainability Solutions (corresponding author).

Teisl, M.F., Noblet, C.L., Corey, R.R., & Giudice, N.A. (2016). Using VR Technology to Access Tourist Reactions to an Offshore Wind Farm. Northeastern Agricultural and Resource Economics Association (NAREA) Annual Workshop. June 22-23, Bar Harbor, ME.

Bennett, C.R., Corey, R.R., Giudice, U., and Giudice, N.A. (2016). Immersive virtual reality simulation as a tool for aging and driving research. In J. Zhou & G. Salvendy (Eds.), Proceedings of the Second International Conference of Human Aspects of IT for the Aged Population (ITAP), Part of HCI International 2016. Toronto, CA. July 17-22 (pp. 377-385). Springer International.

Li, H., Corey, R.R., Giudice, U., and Giudice, N.A. (2016). Assessment of visualization interfaces for assisting the development of multi-level cognitive maps. In D.D. Schmorrow & M.C. Fidopiastis (Eds.), Proceedings of the 10<sup>th</sup> International Conference of Foundations of Augmented

Cognition, Part of HCI International. Toronto, CA. July 17-22 (pp. 308-321). Springer International.

Peters, B.M., Corey, R.R., & Giudice, N.A. (2016). Dynamic Motion Control: Networked Control Software and Expanded Physical Capabilities for Virtual Environment Motion Feedback Devices. Oral presentation at the UMaine Student Research Symposium, April, Cross Insurance Center, Bangor, ME.

Gates, S.C.P., Corey, R.R., & Giudice, N.A. (2015). Multi-Tag Radio Frequency Indication for use in Indoor Positional Tracking Systems. Interactive Exhibition at the Center for Undergraduate Research (CUGR) showcase, April, University of Maine, Orono, ME. [jointly awarded 1st prize for exhibit]

McGrath, T.C., Corey, R.R., & Giudice, N.A. (2015). Development of a Non-Visual Indoor Navigation Assistive Device Using Real-Time Tracking and Multimodal Feedback. Interactive Exhibition at the Center for Undergraduate Research (CUGR) showcase, April, University of Maine, Orono, ME.

Peters, B.M., Corey, R.R., & Giudice, N.A. (2015). Low-Power Device for Indoor Mapping and Navigation. Interactive Exhibition at the Center for Undergraduate Research (CUGR) showcase, April, University of Maine, Orono, ME.

Hurlburt, M.S., Corey, R.R., & Giudice, N.A. (2015). Monitoring Independently Aging Adults With Radio Frequency Indicator Technology: An Inexpensive and Noninvasive Solution for Aging in Place. Interactive Exhibition at the Center for Undergraduate Research (CUGR) showcase, April, University of Maine, Orono, ME. [jointly awarded 1st prize for exhibit]

Sleight, D.A., Corey, R.R., & Giudice, N.A. (2015). Dynamic Motion Control: Developing a 6 DOF motion platform for use in Virtual Environments. Interactive Exhibition at the Center for Undergraduate Research (CUGR) showcase, April, University of Maine, Orono, ME.

Bell, J.B., Corey, R.R., Engstrom, B.R. (2014) Fundamental Structures and Paradigms that produce Functional Collaborative Models in Creative Productions. Diss. University of Maine.

Bell, J.B., Corey, R.R., Engstrom, B.R., (2014). Intermedial Collaborative Studies, UMaine Graduate Expo, April 2014, University of Maine.

Perry, R.J., Corey, R.R., & Giudice, N.A. (2014). Earths Radiational Balance in Virtual Reality, UMaine Graduate Expo, April 2014, University of Maine.

McGrath, T.C., Corey, R.R., & Giudice, N.A. (2014). Non-visual indoor navigation using three-dimensional auditory displays and sensory feedback from Mobile devices. Interactive Exhibition at the 2014 Center for Undergraduate Research (CUGR) showcase, April, UMaine. [awarded 1st prize for demos]

Sleight, D.A., Corey, R.R., & Giudice, N.A. (2014). Mobile mapping Applications: Developing site-specific access to multimodal interfaces for geospatial navigation. Interactive Exhibition at the 2014 Center for Undergraduate Research (CUGR) showcase, April, UMaine.

Cole, J.D., Corey, R.R., & Giudice, N.A. (2014). Virtual simulations of compensatory techniques for age-related vision loss. Interactive Exhibition at the 2014 Center for Undergraduate Research (CUGR) showcase, April, UMaine.

Allain, S., Corey, R.R., & Giudice, N.A. (2014). virtual modeling of forest populations in Maine given the introduction of invasive plant species. Poster at the 2014 Center for Undergraduate Research (CUGR) showcase, April, UMaine.

Hurlburt, M.T., Corey, R.R., & Giudice, N.A. (2014) Using virtual reality to model offshore wind turbines. Poster at the 2014 Center for Undergraduate Research (CUGR) showcase, April, UMaine.

Corey, Richard R.R. (2011) Tugging on Superman's Cape. Diss. UMaine.

Anderson, G.S., Corey, R.R., (2003). Illustrations for "The Adventures of the Bait Barrel Kids and Other Maine Adventures". Anchor Publishing.