Kei Yoshida
Doctoral Student, Brown University

Dept. of Cognitive, Linguistic, and Psychological Sciences (CLPS)
Virtual Environment Navigation Lab (VENLab)
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EDUCATION

May 2026	**Ph.D. in Cognitive Science**, Brown University, Providence, RI Advisor: Dr. William H. Warren First-Year Project Report: "Reconstruction of Interaction Networks in Walking Crowds"
May 2026	**M.A. in Computer Science,** Brown University, Providence, RI
May 2020	**B.A. in Computer Science, Psychology** Coe College, Cedar Rapids, IA Honors: *Magna Cum Laude*, Phi Beta Kappa Senior Honors Thesis: "Perceptual-Motor Recalibration in Naturalistic and Virtual Environments" (Advisor: Dr. Benjamin Chihak)

SCHOLARSHIP, AWARDS, & HONORS

2020 – 2021	Kenneth R. and Pamela L. Galner Graduate Fellowship Recipient, Brown University ($91,241)
2020	Richard H. Bahwell Prize in Psychology, Coe College
2020	McElroy Trust Fellowship Finalist
2020	Phi Beta Kappa, National Honor Society
2019	Coe College Clark Merit Scholars Finalist
2019	Strata, Senior Women's honor society at Coe College
2019	Mortar Board, American national honor society for college seniors
2018	Psi Chi, International honor society in Psychology
2017	Alpha Lambda Delta, National honors society for first-year students

COURSEWORK

Brown University, Providence, RI   2020 – Present

Computer Science:	Data Science, Computer Vision, Deep Learning, Statistical Inference I
Cognitive Science:	Graduate Core I, Perceiving and Acting in 3D, Perception and Action, Applied Regression Analysis

Coe College, Cedar Rapids, IA   2016 – 2020

Computer Science:	Calculus I, Computer Science I & II, Foundations of Computer Science, Data Structures & Algorithms, Programming Languages, Interactive System Design, Object Oriented Programming, Software Engineering, Foundations of Advanced Mathematics, Principles of Computer Graphics
Psychology:	Introductory Psychology, Research Methods, Social Psychology, Organizational Psychology, Statistical Methods and Data Analysis, Personality, Memory & Cognition, Introduction to Biopsychology, Seminar in Psychology (Sensation and Perception), Abnormal Psychology

RESEARCH EXPERIENCE

Graduate Student Researcher   2020 – Present
Brown University Dept. of Cognitive, Linguistic, & Psychological Science, Providence, RI
- First Year Project: "Reconstruction of Interaction Networks in Walking Crowds" (Advisor: Dr. William Warren)
- Analyze behavioral data to reconstruct the structure and dynamics of leadership interaction networks in human crowds. Apply a series of mathematical and statistical measure, such as Time-Dependent Delayed Correlation (TDDC) and network theory, using MATLAB and Python.

Undergraduate Student Researcher   2019 – 2020
Coe College Dept. of Psychology, Cedar Rapids, IA
- Senior Honors Thesis: "Perceptual-Motor Recalibration in Naturalistic and Virtual Environments" (Advisor: Dr. Benjamin Chihak)
- Designed series of experiments systematically investigating recalibration effects in rotational locomotion in naturalistic and virtual environments. Developed a virtual environment in Unity using C#.

Undergraduate Student Researcher   2019
Coe College Dept. of Computer Science, Cedar Rapids, IA
- "Technology Assisted Review with Iterative Classification" (Advisor: Dr. Stephen Hughes)
- Developing a software tool to explore data mining using Python and Java and implement a Naive Bayes classifier for text classification.

Research Assistant   2018 – 2019
Coe College Dept. of Psychology, Cedar Rapids, IA
- "Simple Models of Movement Coordination Account for Limited Portions of Pedestrian Road-Crossing Behavior in Virtual Environments" (Advisor: Dr. Benjamin Chihak)
- Assisted in series of experiments investigating movement-coordination strategies used for gap-interception within a virtual environment created in Unity.

Research Assistant/Software Designer   2018
Coe College Dept. of Psychology, Cedar Rapids, IA
- "How Roadway Design Affects Cyclist-Motorist Interactions" (Advisor: Dr. Benjamin Chihak)
- Collected and analyzed data for experiment exploring the effects of roadway designs on behaviors of motorists. Created the program designed to work on a device used to collect a variety of data using Arduino software and hardware (C++).

Programming Technician   2018
Coe College Dept. of Biology, Cedar Rapids, IA
- "GIS-Based Study on Topographical Preference of Common Tree Species in Palisades-Kepler State Park, IA" (Research lead: Abhinav Shrestha)

- Created Python scripts used to analyze geographical data in ArcGIS software.

Research Assistant   2017 – 2018
Coe College Dept. of Psychology, Cedar Rapids, IA
- "Research Assistant, Relationship Between Psychological Capital and Academic Outcomes" (Principal Investigator: Dr. Sara Farrell)
- Collected data through surveys and analyzed with SPSS Statistics Software.

PUBLICATIONS & PRESENTATIONS

In prep
Yoshida, K., Wirth, T. D., Dachner, G. C., & Warren, W. H. *Collective Motion in Human Crowds as a Model of Self-Organized Collective Behavior.* In prep.
Yoshida, K. & Warren, W. H. *Reconstruction of Leadership Interaction Networks in Walking Crowds.* In prep.

Thesis
"Perceptual-Motor Recalibration in Naturalistic and Virtual Environments" (Advisor: Dr. Benjamin Chihak) https://coecollege.on.worldcat.org/oclc/1258120465

Research Talks
2021   Brown University, First Year Project talk
                  "Reconstruction of Leadership Interaction Networks in Walking Crowds"
2020   Brown University, Perception & Action Seminar Series
                  "Perceptual-motor Recalibration in Naturalistic and Virtual Environments"

Poster Presentations
Yoshida, K., & Warren, W. H. (2022). Visual Interaction Networks and Leadership in Walking Crowds. *Journal of Vision*, *22*(14), 3628-3628. https://doi.org/10.1167/jov.22.14.3628 Poster presented for the annual meeting of the Vision Science Society, St. Pete Beach, FL.
Yoshida, K., & Chihak, B. (2020) *The Transfer of Perceptual-Motor Recalibration between Virtual and Naturalistic Environments.* Poster presented at the 61st Annual Meeting of the Psychonomic Society, held virtually.
Chihak, B., **Yoshida, K.,** & Bordwell, J. (2019) *Simple Models of Movement Coordination Account for Limited Portions of Pedestrian Road-Crossing Behavior in Virtual Environments.* Poster presented at the 60th Annual Meeting of the Psychonomic Society, Montreal, QC, Canada.
Penalver, R. M., Glynn, L., Douglass, G., **Yoshida, K.,** Golder, M., & Hutton, H. (2019) *"50 First Dates": A Community Based Research and Service-Learning Project in a Senior Level Cognitive Psychology Course.* Poster presented at the 60th Annual Meeting of the Psychonomic Society, Montreal, QC, Canada.
Yoshida, K., Shrestha, A., & Chihak, B. (2018) *How Roadway Design Affects Cyclist-Motorist Interactions.* Poster presented at 2018 Tri-State Undergraduate Psychology Research Conference at Loras College, Dubuque, IA.
Bordwell, J., Nixon, K., **Yoshida, K.,** & Chihak, B. (2018) *Perceptual-motor Control Strategies Used by Pedestrians Crossing Bicycle Traffic in Virtual Environments.* Presentation given at Coe College Psychology Research Symposium, Cedar Rapids, IA.

Bordwell, J., Nixon, K., **Yoshida, K.,** & Chihak, B. (2018) *Simple Models of Movement Coordination Account for Mere Fractions of Road-Crossing Behavior.* Poster presented at Coe College Student Research Symposium, Cedar Rapids, IA.

Alarcon-Furman, Y., Thoma, R., Tollefsrud, C., **Yoshida, K.,** & Farrell, S. (2017) *The Relationship Between Psychological Capital, Grit, and Academic Outcomes.* Presentation given at Coe College Psychology Research Symposium, Cedar Rapids, IA.

Alarcon-Furman, Y., Thoma, R., Tollefsrud, C., **Yoshida, K.,** & Farrell, S. (2017) *The Relationship Between Psychological Capital, Grit, and Academic Outcomes.* Poster presented at Coe College Student Research Symposium, Cedar Rapids, IA.

Alarcon-Furman, Y., Thoma, R., Tollefsrud, C., **Yoshida, K.,** & Farrell, S. (2017) *The Relationship Between Psychological Capital, Grit, and Academic Outcomes.* Poster presented at 2017 Tri-State Undergraduate Psychology Research Conference at Coe College, Cedar Rapids, IA.

RELEVANT EXPERIENCE

Teaching Assistance

Brown University, Providence, RI

- Spring 2022   CLPS 0100 Learning and Conditioning (Instructor: Dr. Ruth Colwill)
- Fall 2021   CLPS 0010 Mind, Brain, and Behavior (Instructor: Dr. Elena Festa)

Coe College, Cedar Rapids, IA

- 2019 – 2020   PSY-300 Statistical Methods and Data Analysis (Dr. Scout Kelly)

Tutor   2017 – 2020

Coe College, Cedar Rapids, IA

Computer Science: Computer Science I & II, Data Structures and Algorithms

Psychology: Introductory Psychology, Research Methods, Statistical Methods and Data Analysis, Memory and Cognition, Organizational Psychology, Personality

Assistant Client Support Intern   2018

WatchPoint Data, Inc., Cedar Rapids, IA

- Administered technical support, patch management through Solarwinds N-Central, implementation of a naming convention across the customer base, and other technical duties as assigned.

IT Analyst Intern   2017

Coe College Information Technology, Cedar Rapids, IA

- Responded to and resolved technical issues and difficulties throughout campus in person and via phone.

SERVICE

Brown University, Providence, RI
2021 – 2022	CLPS Graduate Student Representative
2020 – 2021	CLPS Diversity and Inclusion Action Plan (DIAP) Committee
2021	International Student Mentor

Coe College, Cedar Rapids, IA
2016 – 2020	International Club Executive Member (President, Vice President, Secretary)
2018 – 2020	Diversity Inclusion Collaboration Team
2017	International Students Orientation Leader

PROFESSIONAL REFERENCES

Dr. William Warren, Chancellor's Professor of Cognitive, Linguistic and Psychological Sciences, Brown University, Email: William_Warren_Jr@brown.edu

Dr. Benjamin Chihak, Assistant Professor of Psychology, Coe College, Email: bchihak@coe.edu