# MATTHEW CLARK

#### **EDUCATION**

# Doctor of Philosophy in Computer Science

Expected May 2026

University of Virginia, Charlottesville, VA

# Master of Computer Science

August 2023

GPA: 3.973 / 4.0

University of Virginia, Charlottesville, VA

# Certification in Cyber Physical Systems

May 2023

University of Virginia, Charlottesville, VA

## Bachelor of Arts in Computer Science

May 2021

Magna Cum Laude, Computer Science Departmental Honors

Skidmore College, Saratoga Springs, NY

#### WORK EXPERIENCE

#### Graduate Assistant

August 2021 - Present

University of Virginia

- Investigated how to enable personalizing affective messaging for more meaningful communication.
- Designed and ran 4 user studies with a total of 167 participants.
- Cleaned, analyzed, and visualized large amounts of data using statistical analysis (Kruskal-Wallis tests, generalized linear mixed models, etc.) and machine learning models (decision trees, random forests, etc.).
- Presented my research at an international conference to approximately 100 attendees.

#### Research Assistant

January 2019/2020 - August 2019/2020

Skidmore College

- Aided in analysis, study design, and writing of two papers with my undergraduate professors.
- Annotated the privacy policies of 200 mobile apps and analyzed differences using Chi-Squared tests in Python.
- Developed a pipeline in Java using parallel programming to test the runtimes of SQL queries.

### Peer Health Educator

September 2018 - May 2021

Skidmore College

- Organized and ran 20+ events to help promote healthier lifestyles in for college students.
- Promoted and supervised an 8 student committee in the 2020-2021 academic year.

#### **PUBLICATIONS**

- P. Sadekar, J. Baitinger, S. Conway, M. Clark, and A. Doryab, "Personalization in Circadian Rhythm-Based Event Scheduling," The 2023 Systems and Information Engineering Design Symposium (SIEDS), Apr. 2023, doi: 10.1109/SIEDS58326.2023.10137806.
- M. Clark and A. Doryab, "Sounds of Health: Using Personalized Sonification Models to Communicate Health Information," Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT), vol. 6, no. 4, p. 206:1-206:31, Dec. 2022, doi: 10.1145/3570346.
- C. F. Reilly and **M. Clark**, "Moving Recursion Out of the RDBMS for Transactional Graph Workloads," The 11th Annual IEEE Ubiquitous Computing, Electronics Mobile Communication Conference (UEMCON), Oct. 2020, pp. 0371–0376. doi: 10.1109/UEMCON51285.2020.9298122.
- A. Prasad, M. Clark, H. Nguyen, R. Ruiz, and E. Xiao, "Analyzing Privacy Practices of Existing mHealth Apps," The 13th International Conference on Health Informatics (HEALTHINF), Feb. 2020, pp. 563–570. doi: 10.5220/0009059605630570.

#### COURSE EXPERIENCE

#### Graduate:

AI for Social Good; Cloud Computing; Communication, Test-Beds & Policy; Engineering Interactive Technologies; Formal Methods, Safety and Security; Human-Computer Interaction; Human-Robot Interaction; Machine Learning; Signal Processing, Machine Learning and Control

### Undergraduate:

Calculus II; Programming Languages; Math Reasoning and Discrete Structures; Algorithms; Graph Theory; Linear Algebra; Introduction to Computer Organization; Computability and Complexity; Artificial Intelligence; Web Development and Data Security; Computer Vision

### TEACHING EXPERIENCE

### Teaching Assistant

August 2023 - Present

University of Virginia

- Computational Behavior Modeling: Managed assignments and aided discussion for 23 graduate students.

### Tomorrow's Professor Today Program

January 2023 - Present

University of Virginia

- Participated in Tomorrow's Professor Today, a program dedicated to learning pedagogical skills.

Research Mentor

August 2022 - Present

University of Virginia

- Advised 7 undergraduate and a high school student on assisting with graduate level research projects.
- Guided a 2023 capstone project consisting of 3 Systems Engineering 4th year students with the design, implementation, analysis, and writing of their capstone project.

#### SERVICE EXPERIENCE

# Computer Science Graduate Student Group Social Chair

January 2022 - Present

University of Virginia

- Elected by computer science graduate students for 2 one-year terms.
- Organized and ran upwards of 3 social events a month for graduate students.
- Represented graduate students in meetings with the department.

#### **Outreach Event Volunteer**

January 2022 - Present

University of Virginia

- Represented UVA's computer science program at 12 graduate, undergraduate, and faculty recruitment events.
- Led technical demos for the UVA Link Lab at 5 recruitment, outreach, and funding events.

### Journal Reviewer

September 2021 - Present

- Provided reviews of 7 potential publications for IMWUT, CHI, and ACM Health.

#### AWARDS & HONORS

## Link Lab Student Flash Talk Speaker

September 2023

University of Virginia

### University of Virginia

Computer Science Department's John A. Stankovic Research Award Nomination

April 2023

# Link Lab Outstanding Graduate Student Research Award Nomination

April 2023

University of Virginia

# National Science Foundation National Research Traineeship

August 2021

University of Virginia

## Robert and Marcia DeSieno Prize for Excellence in Computer Science

May 2021

Skidmore College