

Meha Goyal Kumar

<https://mehakumar.github.io/>

mehagk2@illinois.edu

EDUCATION

- **University of Illinois at Urbana-Champaign** Champaign, IL
Candidate for Master of Science in Computer Science, Advisor: Heng Ji Aug 2020 – present
- **Georgia Institute of Technology; GPA: 3.98/4.00** Atlanta, GA
Bachelor of Science in Computer Science, Minor in Spanish, Research Option Aug 2016 – May 2020

SKILLS

- **Languages:** Java, C#, C, Python, MATLAB, HTML/CSS, JavaScript
- **Coursework:** AI, Machine Learning, Natural Language Processing, Algorithms for Machine Learning

RESEARCH

- **Expressive Machinery Lab at Georgia Tech** Atlanta, GA
Undergraduate Thesis with Dr. Brian Magerko Aug 2018 – Jun 2020
 - Developed creativity metrics for artificially intelligent agents in open-ended, improvisational installations
 - Enabled creative decision making by studying computational creativity and machine learning
 - Applied work to human-computer collaborative projects: LuminAI and the Robot Improv Circus

Meha Kumar, Duri Long, Brian Magerko. *Creativity Metrics for a Lead-and-Follow Dynamic in an Improvisational Dance Agent*. International Conference on Computational Creativity (ICCC), 2020.
- **Materials Science Research Scholars Program** Atlanta, GA
Undergraduate Research with Dr. Arun Gokhale Jan 2017 – Dec 2017
 - Tested Advanced High Strength Steels (AHSS) for use in the automobile industry
 - Measured AHSS across various strain rates and quantified a new microstructural feature
 - Saved hours of manual Excel work by building MATLAB scripts to process thousands of data points

EXPERIENCE

- **Green Hills Software** Santa Barbara, CA
Software Engineering Intern May 2020 – Aug 2020
 - Developed the RISC-V Architecture Support Package (ASP) for u-velOSity, a real-time operating system
 - Worked closely with the simulator and compiler teams to broaden RISC-V support across the toolchain
- **Green Hills Software** Santa Barbara, CA
Software Engineering Intern May 2019 – Aug 2019
 - Solved long-standing bugs in high reliability, high security embedded software systems
 - Studied debugging principles and developed course materials for a university debugging class
- **JDA Software** Roswell, GA
Software Engineering Intern May 2018 – Aug 2018
 - Re-architected non-standardized, untested RESTful APIs for work force management automation
 - Designed and implemented maintainable software architecture in C# backend code

PROJECTS

- **College of Computing Hackathon** Atlanta, GA
Web Application Feb 2018
 - Crowdsourced the status of campus printers so users can see which has paper before getting there
 - Implemented using SQLite, Flask, and Python on the backend and HTML/CSS for frontend
- **Idea to Prototype** Atlanta, GA
Entrepreneurial Project Aug 2017 – Dec 2017
 - Enabled intuitive interaction with 3D software for engineers and artists by building a 3D mouse
 - Developed software for the interactive demonstration in Python, explored networking with Raspberry Pi
- **Hardware Hackathon** Atlanta, GA
Best Design Award Apr 2017
 - Built a touch-sensitive interactive map of campus to teach Dijkstra's Algorithm using Arduino
 - Machined a laser-engraved graph of campus and wired circuit to use capacitive touch sensing

LEADERSHIP

- **College of Computing** Atlanta, GA
Senior Teaching Assistant Jan 2017 – Dec 2018
 - Taught recitations of 50 students on MATLAB coding and introductory computer science
 - Managed a team of 40 people to create, edit, and grade exams to be taken by 800 students
- **The Girl Code Project** Atlanta, GA
Lecturer and Mentor Jan 2017 – Aug 2017
 - Taught middle school girls Python coding and developed exercises to boost their confidence
 - Mentored girls through designing a STEM-themed video game in Python on a virtual machine

AWARDS AND HONORS

- **Engineering and Technical Science Achievement Scholarship:** Alpha Omega Epsilon, Merit-Based Jan 2018
- **Materials Science and Engineering Research Scholarship:** Georgia Tech, Merit-Based Jan 2017
- **PPD Employee Dependent Scholarship:** Merit-Based Aug 2016 – May 2020
- **Society of American Military Engineers Scholarship:** Merit-Based Aug 2016