Meha Goyal Kumar

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https://mehakumar.github.io/

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

- **BLENDER Lab at UIUC** Champaign, IL
  Master's Thesis with Dr. Heng Ji *Aug 2020 – present*
  ○ Developed models for information extraction from natural language and multimedia sources
  ○ Annotated data to enable further development, thesis topic to be determined

- **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

- **University of Illinois Department of Computer Science**   Champaign, IL
  Graduate Teaching Assistant   *Aug 2020 – present*
  - Assisted in course management for a Machine Learning course
  - Held office hours, created exams and homework, and helped run online lecture

- **Georgia Tech 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*