

# Meha Goyal Kumar

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

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## EDUCATION

- **University of Illinois at Urbana-Champaign** Champaign, IL  
*Candidate for Master of Science in Computer Science* 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
- **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 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

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- **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*