

# Mason Hagan

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## EDUCATION

### Florida State University

*Bachelor's Degree, Computer Science, GPA: 3.56*

Organizations: Association for Computing Machinery, Codeducation, Chess Club, Society of Undergraduate Mathematical Students, Google Student Developer's Club

President's List Recipient, Dean's List Recipient

**Spring 2023 ACM Programming Contest:** top 6%

**Fall 2022 ACM Programming Contest:** top 10%

**Spring 2022 ACM Programming Contest**

Tallahassee, FL

*Jan. 2020 – Dec. 2023*

## EXPERIENCE

### Software Engineer Intern

*Keysight (NYSE:KEYS)*

Jun. 2023 – Aug. 2023

*Colorado Springs, CO (remote)*

- Designed/developed a large scale solution for a product recommendation engine for the eCommerce platform using various machine learning algorithms.
- Contributed to the development of a Django/React web application used company-wide.

### Software Engineer Intern

*Prologix*

May 2022 – Aug. 2022

*Sarasota, FL (remote)*

- Contributed to an approximate 75% increase in the speed of company-wide employee off-boarding by programming the automation of several crucial processes. Became deeply familiar with C#, end to end unit testing, the SCRUM/Agile methodology and Azure.

### Undergraduate Researcher

*Florida State University*

June 2023 – Present

*Tallahassee, FL*

- Collaborated with the FSU College of Medicine to develop an interactive virtual patient out of a large language model, assisting medical students in conducting their standard patient assessments.

### Undergraduate Teaching Assistant

*Florida State University*

Sept. 2023 – Present

*Tallahassee, FL*

- One of two TA's for 800+ students across two classes (CGS2100, CGS2060).

## RESEARCH

### Transformer Model Typo Handling and Neural Network Resiliency

*Prof. Gary Tyson (Directed Study)*

June. 2023 – Present

*Tallahassee, FL*

- Generated new NLP datasets gauging a transformer model's ability to handle typos, tested on BERT and GPT2.
- Tested neural network resiliency of BERT by silencing groups of nodes and benchmarking performance using GLUE and SQuAD benchmark

### Possibility Theory with Graph Algorithms

*Prof. Daniel Schwartz (Directed Study)*

Jan. 2023 – May 2023

*Tallahassee, FL*

- Assisted Professor Daniel Schwartz at Florida State University with research on possibility theory and its applications in vehicular routing and mapping, creating algorithms for finding optimal routes in directed graphs of nodes weighted by possibility degree.

## PROJECTS

(These items are clickable hyperlinks. For more information, click on each project.)

2D Python Game

Multi-User Job Application Tracker

Multi-User Math Education Platform

Paper Trading Server/Orderbook

2D C++ Game

Multi-threaded Linux Kernel Module

## TECHNICAL SKILLS

**Languages:** C/C++, C#, Java, Python, HTML/CSS, R

**Frameworks:** Django, Flask