ETHAN M THOMAS

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SUMMARY

Columbia University Computer Science student with research experience, graduating in October of 2024. Extensive experience with Linux, Python development, shell scripting, and React web development.

EDUCATION

Columbia University, Bachelor of Computer Science (B.S.)

Senior, Graduating October 2024

Fu Foundation School of Engineering and Applied Science

GPA: **4.148/4.0**

Coursework: Artificial Intelligence, Data Structures, Algorithms, Databases, Networks, Operating Systems, Security

Application Development Initiative (ADI) - Organizer of DevFest (annual hackathon), Leader of ADI House Tau Beta Pi (The Engineering National Honor Society) - Member of the New York Alpha Chapter Columbia Space Initiative (CSI) - Member of 2022-2023 NASA Micro-g NExT Competition team

EXPERIENCE

NSF REU Engineering Research Intern

June 2023 - Aug 2023

Florida Atlantic University Institute for Sensing & Embedded Network Systems (I-SENSE)

Boca Raton, FL

New York, NY

- Awarded "Most Outstanding Presentation" for E-Scooter Mobility Sensing Research Project.
- Developed a Raspberry-Pi based data collection system for electric scooters with IMU, GPS, and Speed sensing.
- Utilized machine learning to classify and predict road riding surface types based on collected data.

Software Engineering Intern

Feb 2023 - June 2023

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• Developed a front-end application using the cross-platform Flutter framework.

• Worked with Google Firebase storage and auth for data retrieval and storage.

SKILLS

Programming Languages Python, C, C++, SQL, Javascript, Typescript, Java, OCaml.

Technical Skills Git, Linux, Docker, Bash, LaTeX, HTML, CSS, Raspberry Pi, Virtual Machines.

Libraries & Frameworks React, NextJS, Flutter, PyTorch, Tensorflow, Selenium, Flask, Godot.

PROJECTS - source code available on GitHub.

ADI DevFest Hackathon Website. Led DevFest 2024 website development (2024.devfestcu.com) using React, NextJS, and Javascript. Contributed to the 2023 DevFest website (2023.devfestcu.com).

OpenAir-VPN. Created a custom Linux VPN front-end for AirVPN provided configuration files, supporting Open-VPN, Wireguard, and a killswitch. Relies on Linux, Bash, and iptables firewall rules.

Auto-YouTuber. Created a tool that creates daily YouTube videos by scraping top posts from Reddit, compiling them into a full-length video, and uploading to YouTube autonomously. Uses Bash, Python, FFmpeg, and Docker.

EXTRA-CURRICULAR ACTIVITIES

Competitive Programming

Sep 2023 - Dec 2023

• Competed in the 2023 International Collegiate Programming Contest (ICPC) North American Qualifiers.

Georgetown University Baseball Analytics - Front-End Software Engineer

Sep 2021 - May 2022

• Developed web UI for data visualization using React and the R Plumber Library.

Winter Haven Optimist Club - Volunteer/Web Developer

July 2019 - May 2021

- Developed and designed a new website for an annual Christmas 5k/10k fundraiser.
- Achieved 49% growth in registered runners the year my site went live.