# ETHAN M THOMAS

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#### **SUMMARY**

Columbia University Computer Science student with research experience, graduating in May of 2025. Extensive experience with Linux, Python development, shell scripting, and React web development.

#### **EDUCATION**

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

Fu Foundation School of Engineering and Applied Science

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

Graduating May 2025

GPA: **4.153/4.0** 

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

Boca Raton, FL

- 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

New York, NY

- Developed a front-end application using the cross-platform Flutter framework.
  - Worked with Google Firebase storage and auth for data retrieval and storage.

#### **SKILLS**

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

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

Libraries & Frameworks React, NextJS, Flutter, PyTorch, Tensorflow, Selenium, Flask, Unity3D.

#### **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 - Present

• 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.