# ETHAN M THOMAS

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### **OBJECTIVE**

Student who is passionate about Linux, automation using Bash and Python, and front-end development. Seeking a Summer 2024 Software Engineering internship.

#### **EDUCATION**

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

Graduating Spring 2025

Coursework: Artificial Intelligence, Data Structures, Algorithms, Databases, Linear Algebra, Probability

GPA: 4.0+

#### **EXPERIENCE**

### NSF REU Engineering Research Intern

June 2023 - Aug 2023

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

Boca Raton, FL

- Awarded "Most Outstanding Presentation" for "E-Scooter Mobility Sensing for Smart City Public Safety and Asset Management" 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 independently collected data.

# Software Engineering Intern

Feb 2023 - June 2023

New York, NY

Puberry

- 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

Java, C++, C, Python, Javascript, Typescript

Technical Skills Libraries & Frameworks Git, Linux, Docker, Bash, LaTeX, HTML, CSS, Raspberry Pi, Virtual Machines React, NextJS, Flutter, PyTorch, Tensorflow, Selenium, Flask, Beautiful Soup

EXTRA-CURRICULAR ACTIVITIES

### Columbia Application Development Initiative Committee (ADI)

Oct 2022 - Present

- Head of the Web Development Team for DevFest 2024, ADI's annual Hackathon of over 200 participants.
- Delivered Google Firebase workshop & recruited speakers for DevFest 2023; Recruitment Liaison for ADI House.

# Columbia Space Initiative (CSI)

Sep 2022 - Present

• Worked on an autonomous water vehicle as part of the NASA Micro-g NExT Competition (2022-2023).

#### Georgetown University Baseball Analytics - Front-End Software Engineer

Sep 2021 - May 2022

- Developed web UI that allowed coaches and players to visualize catcher framing data using ReactJS and R.
- Worked with R Data Analysts to convert their projects into APIs using 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.

## **PROJECTS**

Personal projects available on GitHub.

**Seatgeek Scanner.** Built a tool to continuously search for tickets that fall below a target price within a date range for any given show on Seatgeek. Integrates with IFTTT webbooks. Uses Python, Selenium, and Docker.

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

ThingM Blink1 API. Built an API using Python, Flask, and Docker for the ThingM Blink1, allowing for network control. C Web Server (Class Project). Built a dynamic HTTP/1.0 Server in C that serves static files and entries from a database.

# **LEADERSHIP**

- President of Technology Student Association (TSA) Chapter in high school, a club of over 50 students.
- Leader of Art of Engineering Common Project group, which created a "Smart" Hungry-Hungry Hippos game. The game uses an Arduino Microcontroller, beam-break sensors, and push-pull servos.