Ethan M Thomas

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.

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EDUCATION

Columbia University - Fu Foundation School of Engineering and Applied Science

Bachelor of Science in Computer Science - 4.158 GPA   October 16, 2024

• Coursework: Artificial Intelligence, Data Structures, Algorithms, Databases, Networks, Operating Systems, ▢ ▢ ▢ ▢ Security, Natural Language Processing, Compilers, UI Design, Game Design, Computational Sound ▢
• Application Development Initiative (ADI) - Organizer of DevFest 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

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

NSF REU Engineering Research Intern   June 2023 - Aug 2023

• 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.

Puberry

Software Engineering Intern   Feb 2023 - June 2023

• 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

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 OpenVPN, 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 ACTIVITES

• Competitive Programming: Competed in the 2023 International Collegiate Programming Contest (ICPC) North American Qualifiers.
• Georgetown University Baseball Analytics (Club): Developed a web UI for data visualization using React and the R Plumber Library.
• Winter Haven Optimist Club (Volunteer): 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.