

Abhay Harpalani

abhayh2@illinois.edu | linkedin.com/in/abhay | github.com/abhay-harpalani | abhay-harpalani.github.io/

EDUCATION

University of Illinois Urbana-Champaign

Bachelor of Science in Computer Engineering

James Scholar - University Honors Program

Urbana, IL

Class of 2027

GPA: 4.0

EXPERIENCE

Graphic Designer

UIUC OpenLab Makerspace

October 2023 – Present

Urbana, IL

- Part-time job at the OpenLab, a student-run makerspace at UIUC
- Collaborated with OpenLab leadership to redesign brand language
- Used Adobe Creative Suite to create new advertising posters, electronic billboards, and website designs

Automation Intern

Lawrence Berkeley National Laboratory

June 2022 - Feb. 2023

Berkeley, CA

- Developed automation for Google Apps and Smartsheet to streamline onboarding and project updates for client organizations
- Used the Google API in Python and JavaScript to send onboarding summary emails to project managers and update project databases

Project Manager

Eagle Scout Project

Aug. 2019 – Jan. 2022

Fremont, CA

- Led the design, approval, and construction of an arbor and a planter for the Quarry Lakes Demonstration Garden in Fremont, CA
- Supervised 15 scouts and adults to coordinate material delivery, unloading, and construction efforts
- Recognized by Fremont Parks and Recreation leadership for contributions
- Successfully achieved rank of Eagle Scout

Student Researcher

Aspiring Scholars Directed Research Program

May 2020 – Sept. 2020

Fremont, CA

- Worked in a team of 6 to translate the Voynich Manuscript, a codex written in an unknown language
- Analyzed text by comparing it to Latin-based languages
- Published research paper in the ASDRP Communications Journal

PROJECTS

Arduino Drone | C++, Arduino, Embedded Systems Programming

Sept. 2023 – Present

- Using C++ to code an Arduino-based quadcopter
- Wrote code to integrate sensors such as accelerometers and gyroscopes into the drone's hardware
- Implemented PID control algorithms to error-correct altitude, pitch, roll, and yaw
- Wrote documentation throughout the process and used Github for version control

Analog Synthesizer | PCB and Circuit Design, Analog Electronics, Python

Oct. 2022 – June 2023

- Designed, tested, and built an analog synthesizer which takes input from a digital keyboard
- Utilized concepts in analog signal processing, circuit design, and Raspberry Pi programming in Python

TECHNICAL SKILLS

Languages: Python, C/C++, JavaScript, Java, HTML/CSS

Developer Tools: Git, VS Code, PyCharm

Libraries: Pandas, NumPy, Pillow

Programs: Fusion 360, Adobe Illustrator/Photoshop, Ghidra

Clubs: VEX Robotics, SIGPwny Cybersecurity Club, oSTEM