

Abhay Harpalani

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EDUCATION

University of Illinois Urbana-Champaign

Bachelor of Science in Computer Engineering

Dean's List (Top 20% of class)

James Scholar - University Honors Program

Urbana, IL

Class of 2027

GPA: 3.9

EXPERIENCE

Web Designer and Lab Monitor

Oct. 2023 – Present

UIUC OpenLab Makerspace

Urbana, IL

- Part-time job at the OpenLab, a student-run makerspace at UIUC
- Revamped old website with more modern and responsive design, improving experience for OpenLab users
- Helping users with OpenLab equipment as a lab monitor
- Collaborated with leadership to redesign brand language
- Used Adobe Creative Suite to create new advertising posters, electronic billboards, and website designs

Project Lead

Sept. 2023 - Present

Vex Robotics Club

Urbana, IL

- Programmed an Arduino-based drone
- Used control systems algorithms such as PID and Kalman Filters to gain more accurate measurements
- Promoted to project lead for 2024-2025 term
- Currently working on a VSLAM algorithm to take camera input and generate a 3D model

Automation Intern

June 2022 - Feb. 2023

Lawrence Berkeley National Laboratory

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

Aug. 2019 – Jan. 2022

Eagle Scout Project

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

May 2020 – Sept. 2020

Aspiring Scholars Directed Research Program

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

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: NumPy, Pandas, Pillow, pthreads

Programs: Ghidra, Fusion 360, Adobe Illustrator, Photoshop

Clubs: Eta Kappa Nu (HKN), VEX Robotics, SIGPwny Cybersecurity Club, Synton Amateur Radio Club, oSTEM

Other: CAD Design, Soldering, Graphic Design