

# Abhay Harpalani

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## EDUCATION

### University of Illinois Urbana-Champaign

Urbana, IL

Bachelor of Science in Computer Engineering

Class of 2027

*Dean's List (Top 20% of class)*

GPA: 3.9

*James Scholar - University Honors Program*

*Courses: Data Structures & Algorithms, Operating Systems, Distributed Systems, Database Systems*

## EXPERIENCE

### Software Engineer Intern

May 2025 - Present

*Savvly*

*Boulder, CO*

- Developed REST API endpoints using Java and SpringBoot to interact with a PostgreSQL Database
- Created and maintained a comprehensive JUnit test suite to perform integration tests
- Refactored code using the Controller-Service-Repository pattern to enhance readability and maintainability

### Undergraduate Research Assistant

May 2025 - Present

*UIUC International and Area Studies Library*

*Urbana, IL*

- Developed Python scripts to refine the metadata for the IAS Library's Google Custom Search Engine
- Participated in weekly team meetings and documented processes and workflows for future use

### Tech Lead and Web Developer

Apr. 2024 - Present

*Illinois Global Review*

*Urbana, IL*

- Spearheaded development of a scalable news website using Python, HTML, and CSS
- Implemented user authentication, article upload, and editing workflows using the web Flask framework
- Led UI/UX design, enhancing user experience and maintaining brand consistency
- Collaborated with editorial teams to ensure seamless content management for administrators

### Project Lead

Sept. 2023 - May 2025

*Vex Robotics Club*

*Urbana, IL*

- Trained reinforcement learning models to play games such as Blackjack, Pong, and Lunar Lander
- Used methods such as Q-learning, PPO, and Deep Q-Networks to train models
- Presented results to faculty and peers at university's engineering open house

### Web Developer and Lab Monitor

Oct. 2023 - Present

*UIUC OpenLab Makerspace*

*Urbana, IL*

- Redesigned website with more modern and responsive design, improving experience for OpenLab users
- Helping users with OpenLab equipment as a lab monitor
- Used Adobe Creative Suite to create new advertising posters, electronic billboards, and website designs

### Automation Intern

June 2022 - Feb. 2023

*Lawrence Berkeley National Laboratory*

*Berkeley, CA*

- Developed automation for Google Apps and Smartsheets to streamline onboarding and project updates for clients
- Used Google Apps APIs in Python and JavaScript to update project databases and send emails to managers

### 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
- Supervised 15 scouts and adults to coordinate material delivery, unloading, and construction efforts
- Successfully achieved rank of Eagle Scout

## TECHNICAL SKILLS

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

**Developer Tools:** Git, Docker, DBeaver

**Libraries:** NumPy, 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