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 - Present
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