Yuvika Khurana

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EDUCATION

Purdue University West Lafayette, IN
Bachelor of Science in Computer Science, Concentration in Software Engineering *Jan. 2022 – Present*
GPA: 4.0/4.0 | **Expected Graduation**: May 2025
Honors and Awards: Boeing Student Organization Scholarship; Dean's List and Semester Honors (all semesters)
Relevant Coursework: Object-Oriented Programming (Java), Programming in C (with C++), Discrete Mathematics, Data Structures and Algorithms, Computer Architecture, Systems Programming, Software Engineering

WORK EXPERIENCE

Undergraduate Researcher Aug. 2023 – Present
Merck *West Lafayette, IN*
- Collaborated with a team of 7 members to develop a general Dash app interface where the user can import Python code, define the input parameters and generate output parameters and graphs resulting in a 40% reduction in development time
- Uploaded the Dash app to the Merck RSCONNECT system, enabling the Computational Digital team to implement advanced chemical engineering models resulting in optimized workflows and enhanced research capabilities

Undergraduate Teaching Assistant Aug. 2022 – Present
Purdue Computer Science Department *West Lafayette, IN*
- Facilitated instructional support for the courses CS 180: Object-Oriented Programming in Java and CS 251: Data Structures and Algorithms
- Supervised office hours and led the lab sections of 80+ students providing guidance on weekly programming assignments, debugging and facilitating discussions to enhance learning outcomes and problem-solving skills

PROJECTS

MERN Full Stack Social Media App (GitHub link) | *React.js, Redux, Node.js, Express.js, JavaScript, HTML/CSS, MongoDB*
- Created a full-stack Social Media Web Application that allows users to create profiles, follow other users, connect and interact with each other through features such as posting, commenting, liking, content
- Developed front-end using React, making use of Redux Toolkit for state management and implemented back-end using Node.js as the runtime, Express.js as the framework and Mongoose for managing Mongo database

APIs based Chat Application (GitHub link) | *React.js, Redux, Node.js, Express.js, JavaScript, HTML/CSS*
- Designed a full-stack chat application using OpenAI API for AI-driven chat capabilities and Chat Engine for hosting chats and Chat UI that allows users to engage in conversations with both AI chatbots and fellow users, with features like auto-completion of texts
- Built front-end with React, leveraging Redux Toolkit for state management, Redux Toolkit Query for API calls and developed back-end using Node.js as the runtime and Express.js as the framework to manage chat operations

Database Learning Management System (GitHub link) | *Java*
- Designed a Learning Management System using Graphical User Interfaces(GUI) incorporating features of Network I/O and Concurrency that allowed student and teacher users to interact through the discussion forums
- Created a server-client component which uses user defined protocols over network sockets for communication with a multi-threaded, asynchronous implementation

LEADERSHIP & EXTRACURRICULAR

Mentor | *Purdue University LaunchPad* Jul. 2023 – Present
- Mentored a CS freshman, introducing them to the CS community at Purdue and guided them in conceptualizing and executing a semester-long technical project

UX Team Lead | *Purdue Hello World Hackathon* Jan. 2023 – Present
- Led a team of 5 people to plan and organize Hello World 2023 - Purdue's freshman only hackathon
- Strategically planned and executed socials, team building and mentorship events for over 350 participants

Member | *Computer Science Women's Network* Aug. 2022 – May 2023
- Furthered the mission of the organization at Purdue University dedicated to helping women in the Computer Science field
- Facilitated activities including campus-wide events like Puzzle Day, tech panels, socials and professional networking opportunities

SKILLS

Languages: English (Fluent), Hindi (Native), Gujarati (Native)
Programming: Java(proficient), Python(proficient), C(proficient), C++(intermediate), HTML/CSS(proficient), JavaScript(proficient), TypeScript(intermediate), SQL(proficient)
Framework/Technologies: Node.js, React.js, Redux, Express.js, jQuery, Bootstrap, Dash, Git, Unix, MongoDB
Others: Web Development, Object-Oriented Programming, Data Structures and Algorithms