Rashmi Alawani

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EDUCATION

University of Illinois at Urbana-Champaign   Expected Graduation: May 2026
BS in Computer Science - Grainger College of Engineering, Minor in Statistics   *GPA: 3.90/4.0*
Relevant Courses: Data Structures, Algorithms, Computer Architecture, Foundations in Secure Networking, Probability/Stats, Numerical Methods, Linear Algebra, Data Science Discovery

EXPERIENCE

Software Engineering Intern *Shure Incorporated*   May 2024 – Present
- Followed agile and TDD processes to deliver process optimizations and multithreaded enhancements in C# for Automated Testing Dept.'s .NET application that processes Visual Basic test code.
- Overhauled data management website with Angular and TypeScript; Used Extract, Transform, Load principles to reconstruct API connecting to Microsoft SQL Server internal databases, implementing 25% of all page migrations.

Student Researcher *UIUC AIFARMS Laboratory*   Aug. 2023 – Present
- Developed Farm of the Future agricultural web application using Vue.js, Leaflet, and Chart.js displaying satellite images, soil composition, various robot data from on-site ROS server.
- Implemented Python Django REST framework to integrate Planet API into backend, allowing users to search and download processed images, enhancing geospatial analysis of farm. Currently testing CNN models to identify farm areas of interest from robot camera stream with bounding box detection.

Data Science Intern *Northwestern University SONIC Laboratory*   Aug. 2022 – May 2023
- Used R tidytext sentiment analysis package to analyze large transcript datasets with aim of identifying team properties, such as racial and educational homophily, that best predict success in human-autonomy teams.
- Explored assortativity of egocentric networks, identifying patterns within different attributes; visualized results through ERGM network analyses and Confirmatory Factor Analysis with R latent variable analysis (lavaan) package.

Natural Language Processing (NLP) Intern *Pearson*   May 2022 – Sep. 2022
- Used CoreNLP API in Java to auto-generate test items from pharmacy statutes with extraction of a simplified statement, subject-auxiliary inversion, and custom jMWE annotator to access multi-word expressions in a sentence
- Developed pipeline for linking items to portion of statute using constituency parsing and POS tags; Presented at American Board of Medical Specialties Conference 2022.

Software Lead *FIRST Tech Challenge Team 17576*   Aug. 2020 – May 2023
- Programmed TeleOp and autonomous programs in Java and Kotlin to drive an award-winning robot. Incorporated sensor processing, control theory, odometry, tuning, and integrated OpenCV into FTC SDK to detect game elements using contours with over 90% accuracy during matches.

PROJECTS

Campus Connect | *React.js, JavaScript, Pereplexity API, BeautifulSoup, Python*
- Developed a web application for college students to stay updated with on-campus events, featuring a login, and a form for club members to submit events to main page calendar.
- Implemented BeautifulSoup and Perplexity API to parse data scraped from club sites to JSON format for frontend display. Integrated React's Material UI for managing UI state and interactions on main dashboard.

Cisco Networking Academy | *Cisco Packet Tracer*
- Designed and implemented network topologies with Cisco Packet Tracer - Configured network protocols, subnetted IP addresses, established VLANs for virtualized networks, conducted routing simulations.

Geo Trivia | *PHP, phpMyAdmin, mySQL, JavaScript, HTML*
- Developed functioning quiz website with multi-user login portal and question grading that randomly retrieves questions from CSV bank. Handles authentication, password encryption, and quiz grading

TECHNICAL SKILLS

Languages: C++, Python, C#, JavaScript, TypeScript, Angular, BASH, R, Java, Verilog, Assembly, SQL, PHP, HTML
Technologies/Libraries: Git/GitHub, Django, React, Vue.js, Cisco Packet Tracer, Axios, OpenCV, ASP.NET, Pandas, NumPy, Matplotlib, CoreNLP, Docker, Linux/Ubuntu, ROS, Computer Aided Design