Varun P. Gangadharan

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EDUCATION

University of Illinois at Urbana-Champaign, *Grainger College of Engineering*

Bachelor of Science in Computer Science | GPA: 3.73/4.0, Completed May 2023
Currently Enrolled In: Masters in Computer Science | Expected Graduation: May 2024

WORK EXPERIENCE

Flow AI (SaaS Sales Solution Startup) | **May 2023 – Present**
Fullstack Software Engineer Intern (Team Lead) | *Austin, TX*
- Driving the design and development of an intuitive, user-friendly front-end using React.js, fostering increased user engagement and interaction.
- Engineering efficient back-end solutions with Django and SQL, effectively managing data flow and handling for the SaaS sales solution, resulting in improved preliminary database performance.
- Employing AWS cloud services to enhance system scalability and reliability for 150,000+ anticipated daily user sessions.

Leidos | **June 2022 – August 2022**
Software Engineer Intern | *Gaithersburg, MD*
- Spearheaded the development of data collection algorithms to modernize the FAA's ERAM air traffic safety system, bolstering data accuracy and contributing to upgraded system efficiency.
- Streamlined and converted thousands of lines of legacy Kornshell script to Python, enhancing code maintainability and reducing technical debt significantly.
- Actively collaborated with team members in troubleshooting and debugging pre-deployment issues, reducing post-deployment bugs by 25%.
- Restructured ERAM script functionalities to leverage newer Python libraries, slashing script runtime by 30%, thus increasing overall system performance.

Shop2App | **May 2021 – August 2021**
Software Engineer Intern | *Germantown, MD*
- Contributed to front-end design for Shopify apps, optimizing user experience and leading to a 20% increase in app usage for client companies.
- Orchestrated React-based UI design for various websites and apps, resulting in a 15% increase in user engagement.
- Leveraged JQuery to streamline the web development process, reducing development time by 30% and enabling more efficient delivery of solutions to clients.

PROJECTS

Twitter Data Mining
- Developed an efficient Python script using the Tweepy API to extract over 50,000 tweets for comprehensive sentiment analysis via the Textblob library.
- Optimized script to compile user-specified tweets, including sentiment scores, to a CSV file, leading to a 30% reduction in data processing time.
- Enhanced data interpretability by applying data visualization techniques, transforming thousands of raw, scraped data points into clean, presentation-ready CSV tables.

Housing Web App
- Led the development of a full-stack web application using React and Node.js, improving system performance and user interaction, which led to a 25% increase in user engagement.
- Architected the application to continually collect and display data in real-time, providing comprehensive visualization of particle velocities and phase change graphs, which increased user comprehension of data by 35%.
- Ensured application robustness by developing and executing over 100 tests, uncovering and fixing potential memory leaks and functionality issues, reducing system errors by 20%.

ACTIVITIES & VOLUNTEERING

- **Peer Tutor**, University of Illinois at Urbana-Champaign: Assisted peers in understanding and completing CS projects across numerous core classes, contributing to improved class performance.
- Active participant in student-led organizations, including ACM and Reflections Projections, contributing significantly to the organization and successful execution of key events such as career fairs and hackathons.

LANGUAGES/SKILLS

C++, Python, Java, C, HTML/CSS, React, Node.js, MATLAB, R, JQuery, Selenium, Git, Docker, SQL, Neo4j, MongoDB, Vim, AWS, Django

RELEVANT COURSES

Discrete Structures | Software Design | Probability & Stats in CS | Numerical Methods | Computer Architecture | Database Systems | Data Structures | Systems Programming | Applied Machine Learning | Algorithms & Computation Models | User Interface Design