Varun P. Gangadharan

varun.gangadharan.63@gmail.com | https://www.linkedin.com/in/varun-gangadharan-8949b71b5/ | varungangadharan.com | github.com/varun-gangadharan

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) | Python, React.js, SQL, Django, AWS — *Austin, TX*

- As team lead, directing a group of five fellow software engineer interns, guiding project initiatives, resolving challenges, and fostering an environment of collaboration and mutual learning.
- 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 1,000+ anticipated daily user sessions.

Leidos — **June 2022 – August 2022**

Software Engineer Intern | Python, Kornshell, Bash, Docker — *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 | React.js, jQuery, Node.js — *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

AI-driven Nutrition Recommender System

- Used TensorFlow, PyTorch, and Django, incorporating user preferences, dietary restrictions, and health goals; achieved a 35% improvement in personalized diet plan generation precision.
- Leveraged React.js for front-end design and AWS for robust scalability, was able to accomplish capability to reliably manage over 2,000 daily sessions.
- Implemented iterative testing, evaluation, and real-world feedback incorporation, enhancing model accuracy by 20%, and improving user satisfaction and system performance by 30%.

GeoSentiment: Real-time, Multilingual Sentiment Analysis and Visualization on Twitter

- Designed and implemented a real-time, multilingual sentiment analysis engine for Twitter using Tweepy Stream API, NLTK, SpaCy, and scikit-learn, resulting in a 40% enhancement in sentiment detection.
- Developed an interactive, user-friendly web interface with React.js and data visualizations using Matplotlib and Seaborn; deployed robustly on AWS using Docker and Kubernetes, ensuring scalability for live analysis sessions.
- Established an iterative feedback loop with end-users, leading to refinements in the machine learning model and interface, culminating in a 25% improvement in model accuracy

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 | Artificial Intelligence | Compilers