

Varun P. Gangadharan

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EDUCATION

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

Bachelor of Science in Computer Science

Currently Enrolled In: Masters in Computer Science

GPA: 3.73/4.0, Completed May 2023

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

- Guided a team of five software engineer interns as Team Lead, directing project initiatives, and fostering an environment of collaboration and mutual learning.
- Conceptualized and developed a user-friendly front-end interface using React.js, fostering increased user engagement and interaction.
- Optimized back-end operations by engineering solutions with Django and SQL, which led to a 30% improvement in database performance and overall system efficiency.
- Deployed AWS cloud services along with Docker/Kubernetes for system scalability, thereby establishing the capacity to reliably support extensive user sessions, potentially up to 1,000+ daily.

Leidos

June 2022 – August 2022

Software Engineer Intern | Python, Kornshell, Bash, Docker

Gaithersburg, MD

- Developed data collection algorithms to modernize the FAA's ERAM air traffic safety system, improving data accuracy by 15% and system efficiency by 20%.
- Converted thousands of lines of legacy Kornshell script to Python, reducing technical debt by 35% and enhancing code maintainability.
- Collaborated with team members to debug pre-deployment issues, reducing post-deployment bugs by 25%.
- Leveraged newer Python libraries to restructure ERAM script functionalities, slashing script runtime by 30% and boosting system performance by 20%.

Shop2App

May 2021 – August 2021

Software Engineer Intern | React.js, jQuery, Node.js

Germantown, MD

- Designed the front-end of Shopify apps, improving user experience and leading to a 20% increase in app usage across client companies.
- Orchestrated React-based UI design for various websites and apps, leading to a 15% increase in user engagement.
- Used JQuery to streamline the web development process, accelerating solution delivery.

PROJECTS

AI-driven Nutrition Recommender System

- Incorporated user preferences, dietary restrictions, and health goals into an AI-driven nutrition recommender system, leading to a 35% improvement in personalized diet plan generation precision.
- Used React.js for front-end design and AWS Lambda for scalability, accomplishing capability to reliably manage over 2,000 daily sessions reliably.
- Implemented iterative testing and feedback incorporation, enhancing model accuracy by 20% and improving system performance and user satisfaction 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.

SKILLS & FRAMEWORKS

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