Chaitanya Chaudhari

Professional Summary

Graduate CS student with strong programming foundations in C/C++, systems design, and operating systems. Experienced in backend software development, debugging, and automation across cloud-native stacks. Proficient in Linux environments with hands-on exposure to Docker, Kubernetes, and container orchestration. Eager to contribute to next-gen data center simulation and system-level software at NVIDIA.

Education

George Mason University, Fairfax, Virginia.

August 2024 - Present

Master of Science, Computer Science

• Coursework: Component based Software Development (DevOps & Infrastructure), Information Security, Network Security.

Internship Experience

Cognifront Software Pvt. Ltd

January 2023-March 2023

Web Development Intern

- Designed dynamic frontend components using **JavaScript** and optimized backend queries with PHP/SQL, enhancing system responsiveness by 30%.
- Improved backend scalability by restructuring database architecture, achieving a 20% reduction in query load times.
- Implemented version control workflows with **Git**, and managed deployments on **Linux-based staging environments**, improving integration turnaround by 25%.

The Sparks Foundation

December 2022-January 2023

Data Science & Business Analytics Intern

- Built and deployed predictive ML models using Scikit-learn and TensorFlow, improving model accuracy by 20%.
- Automated data cleaning and preprocessing pipelines, reducing manual effort by 25% and improving dataset quality.
- Designed and published interactive dashboards on Tableau and Power BI, accelerating decision-making for stakeholders.

Projects

DockPilot - AI-Powered Dockerfile Generator. GitHub

- Developed a Python tool leveraging LLaMA 3 (via Ollama) to generate Dockerfiles for any language.
- Created a structured project directory with Dockerfile and .dockerignore, supporting **prompt-based customization**.
- Integrated Dockerfile generation with GitHub Actions for automated builds and deployment to DockerHub

Loopify – Full Stack Music Streaming App. GitHub

- Architected a full-stack music streaming application using React, Redux, TypeScript, and Tailwind CSS, delivering a
 responsive and mobile-optimized UI across devices.
- Engineered a scalable backend with **Node.js** and **Express.js**, integrating real-time song search and lyrics display via REST APIs, improving query efficiency by **35%**.
- Containerized and deployed the application using Docker, ensuring consistent performance and faster environment setup across different deployment targets.

Early-Stage Eye Disease Detection (Anisocoria) GitHub

- Developed a machine learning pipeline in Python using image processing techniques (Hough Transform, binarization) and Scikit-learn, achieving 85% accuracy in detecting anisocoria.
- Enhanced model scalability and reliability through iterative testing and distributed computing techniques, optimizing large-scale healthcare data analysis workflows.

Unisurvey - Full Stack Campus Survey App. GitHub

- Developed and deployed a full-stack survey app using Angular (frontend) and Spring Boot (backend), with MySQL on Amazon RDS.
- Integrated real-time form validation, cookie-based greetings, and ZIP-code autofill using AJAX and JSON.
- Built a Jenkins-based CI/CD pipeline and containerized the app using Docker, deploying on a Kubernetes cluster via Rancher, ensuring seamless rollouts and high availability.

Technical Skills

- DevOps & Cloud: AWS, Docker, Kubernetes, Jenkins, GitHub Actions, CI/CD, Rancher, Terraform.
- Languages: C++, Go (basic), Java, TypeScript, JavaScript, Python.
- Operating Systems & Tools: Linux (CLI), Git, Bash, Shell Scripting
- Web Development: Node.js, Express.js, React.js, Angular, Spring Boot
- Data & Visualization: MySQL, MongoDB, Amazon RDS, Power BI, Tableau
- Certifications: AWS Academy Cloud Foundations, DevOps Foundation, C++ (IIT Bombay)