

## Education

### University of North Carolina at Charlotte

August 2023 - December 2024

Master of Science in Computer Science (GPA: 3.90 / 4.00)

### Jawaharlal Nehru Technological University

June 2017 - July 2021

Bachelor of Technology in Computer Science (GPA: 8.2 / 10.00)

## Technical Skills

**Languages:** Java, Kotlin, Python, JavaScript, Golang, C, C++, Bash

**Frameworks and libraries:** Spring Boot, Spring WebFlux, React, Node.js, Vue.js, Angular, Spring Batch

**Databases:** PostgreSQL, MySQL, MongoDB, Redis, DynamoDB, Cassandra, Bigtable

**Technologies:** Docker, Kubernetes, Helm, ArgoCD, Terraform, CI/CD (GitHub Actions, Jenkins), Git, Apache Kafka

**Machine Learning & NLP:** PyTorch, Tensorflow, Transformers, LangChain

**Monitoring Tools:** AppDynamics, Splunk, Google Cloud Monitoring

**Cloud & Tools:** GCP, AWS, Kubernetes (on-prem & Google Kubernetes Engine), Google PubSub

## PROFESSIONAL EXPERIENCE

### NCR Voyix

April 2023 - August 2023

#### Software Engineer II

- Designed and deployed an internet banking platform used by over 400+ credit unions, processing 5 million transactions daily.
- Developed microservices using Java Spring Boot and Spring WebFlux, containerized with Docker, and deployed on Google Kubernetes Engine (GKE).
- Implemented CI/CD workflows with GitHub Actions and ArgoCD, streamlining deployments of Kubernetes Helm charts and reducing deployment time by 40%.
- Utilized Redis for caching, reducing query response times by 40%, and integrated PostgreSQL for transaction data management.
- Leveraged Google Bigtable (a Cassandra-based database) for scalable and reliable data storage, improving data access speed and reliability.
- Created a chatbot solution using transformer-based LLMs in PyTorch, providing conversational interfaces for credit union customers and improving query resolution by 30%.

### NCR Voyix

August 2021 - April 2023

#### Software Engineer I

- Migrated legacy systems to modern microservices architecture using Spring Boot and .NET Core, ensuring 99.9% uptime.
- Enhanced deployment workflows with Kubernetes and Helm, improving scalability and reducing manual intervention.
- Built event-driven communication systems with Apache Kafka to ensure real-time data processing and system synchronization.
- Designed RESTful APIs to integrate internal systems with PostgreSQL and Elasticsearch.

### NCR Voyix

February 2021 - August 2021

#### Software Engineer Intern

- Built big data pipelines using Google Cloud DataFlow for processing transactional data (10K/day), increasing throughput by 50%.
- Built a Proof of Concept (POC) job scheduler using Google Cloud Scheduler for automated workflows, improving job execution reliability.

### Virtusa

June 2020 - November 2020

#### Software Engineer Intern

- Constructed an IoT system using machine learning to automate responses for 1,000+ daily interactions.

### University of North Carolina at Charlotte

January 2024 - December 2024

#### Graduate Research Assistant

- Spearheaded the development of the Criminal Investigations Learning Framework under Prof. Dr. Hariniramprasad, enhancing cybersecurity education for over 500 students annually.
- Crafted 15+ interactive modules using MERN, incorporating quizzes and gamified elements to boost student engagement by 30%.
- Executed integration of NinerNet single sign-on, enhancing system accessibility for 20,000+ university community members.

## Projects

### RAG Based Smart Financial Advisor

- Built a real-time web app using Python, Streamlit, and LangChain to provide personalized investment recommendations, integrating financial data APIs and GPT-4 for market analysis and insights.

### Single-Shot Object Detection for Face Masks using YOLOv3

- Authored a research paper on single-shot object detection using YOLOv3, published in the International Journal of Engineering Science and Computing, which enhanced methods for mask status classification.
- Achieved 88.5% accuracy in detecting mask-wearing across 853 images over 100 epochs with YOLOv3, surpassing baseline models by 15% and classifying mask status for over 850 individuals.

### Style Transfer for Artistic Image Reconstruction Using Convolutional Neural Networks

- Published research on Neural Style Transfer in the International Research Journal of Engineering and Technology, demonstrating advanced techniques in style-content fusion.
- Utilized the VGG19 neural network for style transfer on 300+ images, achieving enhanced image quality through iterative cost minimization and precise content and style feature analysis.

## Coursework

Software Engineering, Cloud Computing, Intelligent Systems, Advanced Database Management Systems, Machine Learning, Networking, Data Structures, Algorithms, Full-Stack Application Development, Object Oriented Design with Java, Software System Design Patterns