BHARATH BHASKAR

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EDUCATION

Northeastern University

Boston, MA

Master of Science in Information Systems

Expected Apr 2025

• Relevant Coursework: Network Structures and Cloud Computing, Data Science Engineering, High Performance Computing, Data Management and Database Design

PES University Bangalore, India

Bachelor of Technology in Electronics and Communications Engineering

Aug 2021

• Relevant Coursework: Data Structures, Algorithms, Database Management Systems, Operating Systems

TECHNICAL SKILLS

Languages: Java, Python (Pandas, NumPy), SQL, JavaScript, C++, HTML, CSS, Typescript, Bash

Frameworks: Spring Boot, Flask, React, Node.js, Angular, OAuth

DevOps Practices: CI/CD, Docker, Kubernetes, Jenkins, Agile/SAFe methodologies, Terraform (HCL), AWS, Azure, GCP, API Gateway

Machine Learning: PyTorch, TensorFlow, scikit-learn, Dask, Librosa

Developer & Data Tools: Git, Jenkins, Kafka, API Testing, Postman, REST/RESTful APIs, Swagger, Linux, PowerBI

EXPERIENCE

Software Development Engineer, Module Lead

Jun 2021 - May 2023

Mphasis Ltd.

Bangalore, India

- · Architected and implemented RESTful APIs using Java/Spring Boot for FedEx's logistics platform, with JWT authentication and comprehensive API documentation, handling 1M+ daily requests
- Designed microservices architecture using Kafka as a message queue for real-time data streaming, achieving 99.9% uptime and 30% improved response times.
- Streamlined deployment and scalability of the data pipeline and backend services by leveraging Docker, Jenkins, Azure, and Kubernetes, implementing CI/CD pipelines and unit and integration tests, resulting in a 25% reduction in deployment time and a 15% decrease in operational costs
- Optimized algorithms for transport calculations and real-time data processing, enhancing efficiency and system performance
- Conducted code reviews on over 30 pull requests per month, including unit tests and integration tests; identified critical quality issues early, preventing potential bottlenecks during deployment phases

Research Intern

Sep 2020 – Mar 2021

Electronics and Radar Development Establishment

Bangalore, India

- Developed algorithms for real-time data analysis in electronic counter-countermeasures, enhancing RADAR efficiency by 30%
- Enhanced threat detection accuracy by 25% using real-time signal processing techniques
- Performed EDA on radar datasets, identifying patterns and anomalies that improved predictive model accuracy by 30%
- Optimized deep learning models for improved radar data classification, resulting in a 25% accuracy boost and a 20% reduction in inference time, enhancing overall system performance.

Jun 2020 - Jul 2020 **Analyst Intern**

Calixto Systems Bangalore, India

- Designed and implemented scalable data pipelines to process 1M+ records daily using Python, SQL, and AWS services (S3, Lambda), streamlining data integration and reporting workflows
- Automated reporting solutions with PowerBI, improving real-time analysis and decision-making accuracy by 95%
- Migrated 500,000+ Salesforce CRM records to Snowflake, integrating with AWS Redshift to enhance cloud storage capacity

PROJECTS

Cloud Native WebApp | GCP, Flask, Python, Terraform, DNS, Packer, CI/CD | GitHub

Jan 2024 - May 2024

- Developed RESTful APIs with authentication mechanisms (JWT), ensuring secure data management
- Implemented end-to-end API testing with pytest, achieving 90% test coverage
- · Orchestrated CI/CD pipelines using GitHub Actions, integrating with GCP services and KMS encryption
- Reduced deployment time by 50% through optimized Compute Engine images with Packer
- Enhanced observability using GCP's Cloud Logging & configured autoscaling and load balancing ensuring reliability and scalability

Lung Cancer Prediction | *Python, Pandas, NumPy, scikit-learn* | GitHub

Feb 2024 - Apr 2024

- Achieved 95% accuracy using multinomial logistic regression and AutoML on a dataset of 1,000+ records
- Identified key predictors associated with a 1.5x increase in lung cancer risk among non-smokers

Sep 2024 – Present

- Distributed Deep Learning for Audio-Based Classification | *PyTorch, Librosa, Dask* | <u>GitHub</u> Sep 2024 *Present* Developed a deep learning model using PyTorch to classify bird species from a large-scale audio dataset (26 GB of bird songs), converting audio recordings into spectrograms and applying data augmentation to enhance model generalization
- Leveraged PyTorch Distributed Data Parallel (DDP) to efficiently train the model across multiple GPUs, significantly reducing training time and optimizing computational resources