Srinivas Natarajan Data Engineer

Tempe, Arizona 85282
+1 602 814 9054 nsrinivas06@gmail.com linkedin.com/in/srinivas-natarajan github.com/Srinivas-Natarajan

Education

Arizona State University **August 2022 – May 2024**
Master of Science in Computer Science *GPA:3.96/4.0*
Relevant Coursework: Cloud Computing, Statistical Machine Learning, Data Mining, Artificial Intelligence

Vellore Institute of Technology **July 2018 – June 2022**
Bachelor of Technology in Computer Science *GPA: 9.38/10.0*
Relevant Coursework: Computer Architecture, Database Systems, Operating Systems, Natural Language Processing

Technical Skills

Languages/Tools: Python, C++, JavaScript, Java, SQL, PostgreSQL MongoDB, NoSQL, HTML/CSS, Bootstrap, Node.js, Microsoft Power BI, Tableau, MATLAB, Git, GitHub, AWS, Oracle Cloud (OCI), Docker, Linux, LangChain, FastAPI, TensorFlow, PyTorch, Matplotlib, OpenCV, Excel, REST API, JIRA, Django, Flask, Spark, Confluence, Apache Kafka, Apache Airflow, AWS Glue, CloudWatch

Skills: Machine Learning, Deep Learning, NLP, LLMs, Data Engineering, Data Analysis, Data Visualization, Data Governance, Data Warehouse, Data Modeling, Data Pipelines, DevOps, Continuous Integration, Agile Development, Shell Scripting

Certifications: Oracle Generative AI Certified Professional, AWS Cloud Practitioner

Experience

Local Grown Salads **August 2024 – Now**
Backend Engineer *Tempe, AZ*
- Engineered a time-critical feature to meet FDA regulatory standards, ensuring compliance for over 200,000 data entries within a 3-month deadline.
- Collaborated to develop a data streaming and messaging system with **Apache Kafka**, enabling efficient communication across 5 cross-functional teams and monitoring using **Airflow**.
- Spearheaded the containerization of 3 key source code components with Docker, reducing deployment time by 20% and facilitating seamless migration to **AWS**.

Velozity Global Solutions **February 2022 – May 2022**
Machine Learning Engineering Intern *Chennai, India*
- Designed a Python application to detect arrhythmia using live ECG signals, achieving a **97%** accuracy rate.
- Programmed a robust classification system capable of identifying **15 types** of arrhythmia, utilizing transformer-based models integrated with a pipeline for data engineering and peak detection algorithms.
- Prototyped a health device and helped design an associated dashboard that improved data monitoring capabilities, resulting in a 5% reduction in the response time.

Amigo **July 2021 – September 2021**
Software Developer Intern *Vellore, India*
- Developed deep learning models for audio augmentation, recognition, and classification of 25 classes.
- Coordinated in building a CI/CD and data pipeline for **ETL** operations to integrate audio pre-processing and augmentation into the product, streamlining future tuning and improvements, and achieving **82%** accuracy.
- Led a comparative study on the performance of traditional pre-trained CNNs versus transformer-based solutions.

SmartERP Solutions **May 2021 – July 2021**
Trainee Consultant *Bangalore, India*
- Automated a dashboard for cost analysis and KPI visualization using Power BI, to aid reporting, saving 3 hours weekly.
- Implemented RBAC and OLS in the organization's cloud infrastructure, reducing unauthorized access incidents and enhancing overall security compliance.
- Implemented DAX measures to streamline financial reporting processes, reducing data retrieval time and increasing team productivity by over 10 hours monthly.

Projects

Open Source Facial Recognition | *Python, AWS, Ceph, OpenFaaS, Docker* **November 2023**
- Deployed over 15 instances of custom VM infrastructures dedicated to hosting educational software powered by Python & Ceph clusters as an alternative to AWS EC2, Lambda and S3.
- Architected a multi-cluster database on AWS, integrating Ceph for scalable storage, and designed a high-accuracy (99%) predictive model.

Heart Arrhythmia Detection System | *Python, PyTorch, TensorFlow, JavaScript, Docker* **March 2022**
- Spearheaded the design and implementation of a deep learning solution to classify electrocardiogram (ECG) signals into 15 different arrhythmia labels.
- Constructed a specialized system that was seamlessly compatible with smart devices and Arduino platforms, enhancing usability across healthcare applications.