SURYAKIRAN SURESHKUMAR

+1 551-222-9708 • suryakiranbdsk@gmail.com • LinkedIn • GitHub • Portfolio

Experience

- Analyst, Software Engineering | **Goldman Sachs** September 2024 - Present
  - Designed and developed a scalable spark refiner that periodically ingests, normalizes, and stores margining and netting terms in a centralized data lake, processing 3M+ of records per day to support downstream margin calculation pipelines.
  - Primary developer for an LLM-powered system to automate netting rule creation from structured playbooks, eliminating manual workflows and reducing rule creation time from weeks to minutes and saving $1.2M annually.
  - Designed and implemented a risk analysis platform to automate trade margining based on legal agreements, enabling margin call workflows and supporting 16M+ daily requests with 99.99% uptime using Java, Spring Boot, and Kubernetes.
  - Boosted system performance by 30-40% through RabbitMQ-based async processing, HAProxy load balancing, and Apache Geode caching, backed by MySQL for data integrity.
  - Contributed across the full SDLC, from requirements to global deployment, collaborating with cross-functional teams across 5+ regions.
- Data Engineer Intern | **Promantus Inc.** June 2023 - August 2023
  - **Automated Cash Application:** Defined parsers in Java for the cash application, enabling seamless integration with multiple bank statement formats resulting in a 50% reduction in manual effort and a 95% increase in data accuracy.
  - **P&ID detection:** Pioneered the implementation and fine-tuning of the few-shots object detection model, resulting in a 10% improvement in detection & classification accuracy compared to the previously implemented solution.
- Analyst, Machine Learning Engineering | **Tiger Analytics** February 2021 - July 2022
  - **No-Code data science platform:** As the lead engineer, I led a team to design and deploy over 30 predefined functions for data science tasks using Azure Databricks and PySpark. I developed a scalable backend with FastAPI, enhancing execution capabilities. I also spearheaded the creation of a CI/CD pipeline, improving deployment speeds by 20%. Collaboration and communication with cross-functional teams ensured the successful rollout of the platform.
  - **Automated Shelf Analysis:** Led the creation of a mobile app for inventory video analysis, slashing manual labor by 60%, and developed an AWS ETL pipeline to analyze financial trends, driving data-informed decisions.
- Summer Intern | **National University of Singapore & Hewlett Packard Enterprise** June 2019
  - Gained knowledge and experience in Big Data Analytics using Artificial Neural Networks.
  - Pioneered the development of an award-winning Django-based application that leverages neural networks to detect phishing sites, securing the top spot among 40 innovative projects.
  - Implemented AES encryption on a file containing passwords by leveraging a MapReduce job within the Hadoop ecosystem.

Education

- **Courant Institute of Mathematical Sciences, New York University** New York, NY
  M.S - Computer Science; GPA: 3.85/4.00 *September 2022 - May 2024*
- **Thiagarajar College of Engineering, Anna University** India
  B.E - Computer Science and Engineering; GPA: 9.11/10.00 *August 2017 - April 2021*

Skills Summary

- **Programming Languages**: Python, Java, C++, C
- **Full-Stack Development**: Spring Boot, HTML, CSS, JavaScript, Django, FastAPI, Node.js, React.js, Flask
- **Cloud, Version Control & CI/CD**: AWS, Azure, Oracle, RabbitMQ, Terraform, Git, GitHub, GitLab, Azure DevOps
- **Big Data Technologies**: Hadoop, HDFS, YARN, MapReduce, Hive, Elasticsearch, Spark
- **Databases**: MySQL, SQL Server, PostgreSQL, MongoDB, Oracle, Redshift, Snowflake, Redis, BigQuery
- **Tools & Platforms**: Postman, Power Apps, DataBricks, Docker, Flutter, JIRA

Projects

- **DriveVLM**: Expertly fine-tuned(using Low-Rank Adaptation) the QwenVL Vision-Language Model within a Carla Simulator environment for autonomous driving applications, achieving superior performance compared to traditional methods while utilizing only 40% of the data.
- **ChatLoom**: Implemented a specialized chatbot using OpenAI's advanced large language model for detailed cosmology and astrophysics responses. Integrated with LangChain, it's accessible via a web application developed using Chainlit.
- **Phishing Site Detection**: Developed a web application, complemented by a Chrome extension, that utilizes a neural network to detect phishing sites after rigorous data cleaning, achieving an accuracy of 98.73%. The system notifies users about the safety of sites and forwards analysis to the cyber department.