SURYAKIRAN SURESHKUMAR

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Education

- **Courant Institute of Mathematical Sciences, New York University** — New York, NY
  M.S - Computer Science; GPA: 3.8/4.0 — *September 2022 - May 2024*
- **Thiagarajar College of Engineering** — Madurai, India
  B.E - Computer Science and Engineering; GPA: 9.1/10.0 — *August 2017 - April 2021*

Skills Summary

- **Programming Languages**: Python, C++, C, Java, Go
- **Web Development**: HTML, CSS, JavaScript, jQuery, React.js, Node.js, Express.js, Flask, Django, FastAPI, REST API
- **Databases**: MySQL, PostgreSQL, MongoDB, Oracle
- **Cloud Technologies**: Azure, Oracle, AWS
- **Version Control & CI/CD**: Git, GitHub, GitLab, Azure DevOps
- **Data Libraries & ML**: PySpark, Pandas, NumPy, Scikit-Learn, Matplotlib, OpenCV, PyTorch, Tensorflow
- **Tools & Platforms**: Postman, Power Apps, DataBricks, Tableau, Docker, Flutter, JIRA

Experience

- **Data Engineer Intern** — June 2023 - August 2023
  Promantus Inc. — *Raleigh, North Carolina, US*
  - **P&ID detection:** Implemented and fine-tuned few-shots object detection model, resulting in a 10% improvement in detection & classification accuracy compared to the previously implemented solution.
  - **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.
- **Analyst, Machine Learning Engineering** — February 2021 - July 2022
  Tiger Analytics — *Chennai, India*
  - **No-Code data science platform:** As the founding engineer, the role involved spearheading the team, architecting 30+ predefined functions for data science tasks using Azure Databricks and PySpark, creating a backend API for execution, and establishing a CI/CD pipeline that improved deployment speed by 20%. Collaboration and communication with cross-functional teams ensured the successful rollout and integration of the platform.
  - **Automated Shelf Analysis:** Engineered a mobile application that captures video of items on shelves and provides an overall count of each product, resulting in a 60% reduction in manual labor.
- **Academic Intern** — June 2019
  National University of Singapore — *Singapore*
  - Gained knowledge and experience in Big Data Analytics using Artificial Neural Networks.
  - Pioneered the development of an application for detecting phishing sites, which received the best project award out of 40 projects.
- **Summer Intern** — June 2019
  Hewlett Packard Enterprise — *Singapore*
  - Acquired deeper understanding on Big data and Hadoop System Administration.

Academic Projects

- **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.
- **Covid Fight**: Designed and developed a mobile application aiding users during the coronavirus pandemic. Features include live count updates of cases, a crisis communication chatbot to resolve pandemic-related queries, a self-diagnosis tool, hand-washing reminders, and immediate access to distress numbers.
- **Using video summarization techniques for effective search indexing**: Combined deep learning-based video summarization, image captioning, key-frame extraction, and stop word removal to enhance video search indexing. This approach resulted in a 230% improvement in search engine recall scores.

Paper Publications

- **"Deep learning framework for component identification"** International Journal of Information Technology(2022), Springer 2022. : Designed a system to monitor a manufacturing assembly line, detecting, classifying, and counting various components in real-time imagery.
- **"Scene Understanding in Night-Time Using SSAN Dataset"** National Conference on Computer Vision, Pattern Recognition, Image Processing, and Graphics 2019, Springer 2020. : Proposed a system that leverages a CCTV camera to enhance captured images and effectively detect objects in night-time conditions.