

KARTIKEYA SYAL

Los Angeles, CA 90007 | 219-546-1834 | ksyal@usc.edu | linkedin.com/in/kartikeya-syal | github.com/kartikeyasyal

EDUCATION

University of Southern California

Los Angeles, California

Master of Science, Computer Science

August 2022-May 2024

CGPA - 3.67/4.00

Vellore Institute of Technology

Vellore, India

Bachelors of Technology, Mechanical Engineering and Computer Science(Minors)

July 2016-May 2020

CGPA - 9.14/10.00

EXPERIENCE

Goldman Sachs

Bengaluru, India

Software Developer

July 2020-July 2022

- **Legacy System Overhaul for Derivatives:** Thunderhead | Java | MongoDB | Git | Jira
Addressed emerging Brexit-related complexities by overhauling the essential derivative confirmation process. Reengineered the legacy system, introducing a robust platform that replaced a 20-year-old infrastructure. Slashed Turnaround Time (TAT) by 90%, cutting the waiting period from t+10 days to a mere t+1 day.
- **Python Data Extraction & Pipeline Development:** Python | BeautifulSoup | SQL
Pinpointed and responded to a critical market demand for a flawless and timely extraction of public trade data. Developed an advanced Python-driven web scraping pipeline, drastically accelerating the transformation of extensive data sets. Amplified data processing capabilities, boosting processing speed by 10x, cutting latency from 50 minutes down to 5 minutes.
- **Automated Trading Infrastructure Enhancement:** Python | Linux | Bash | Kubernetes
Optimized trading system by identifying and addressing critical bottlenecks. Enhanced Linux for high-frequency trading and integrated Python/Bash scripts, resulting in 15% reduced latency.

Goldman Sachs

Bengaluru, India

Business Intelligence Intern

January 2020-July 2020

- **Pandemic Efficiency Analysis Dashboard:** Alteryx | Tableau | Python
Tackled the pressing pandemic-induced efficiency deficits within the division, resulting in more resilient operations. Spearheaded the design and launch of a data-intensive Python dashboard that assessed prevailing work conditions. Elevated the division's operational efficiency by a significant 20% after dashboard deployment.
- **Real-time Risk Visualization with KRIs:** Alteryx | Tableau | Python
Understood the imperative need for a KRI dashboard to quantify and manage divisional risks effectively. Led the creation of a Tableau dashboard, accentuating the vital role of Key Risk Indicators (KRIs). Facilitated improved risk decision-making by delivering a user-centric, intuitive risk visualization tool.

ACADEMIC PROJECTS

- **Event Finder :** (link) Ticketmaster API | Angular | Node.js | Flask | MongoDB | GCP | SwiftUI
Designed a location-centric platform, ensuring seamless integration between web and iOS environments. Amplified user engagement by 200% after the strategic integration of the Ticketmaster API. Revolutionized event discovery by implementing robust keyword/category filters, boosting efficiency by 50%.
- **Sentiment Analysis on Amazon Reviews:** (link) Python | Tensorflow | Scikit-Learn | NLTK | Pandas
Harnessed TensorFlow to glean sentiments from a 60k Amazon review set, achieving a standout 80% accuracy rate. Pioneered the exploration of architectures like SVM, MLP, and RNN, elevating detection precision by a notable 15%. Maximized sentiment depth comprehension by employing Word2Vec, providing a richer sentiment landscape.
- **Enhancing Named Entity Recognition with Bidirectional LSTM:** (link) Pytorch | Python | Deep Learning
Overhauled NER mechanisms on the CoNLL-2003 dataset, leveraging advanced machine learning algorithms. Synchronized bidirectional LSTM with GloVe embeddings, yielding a 25% ascent in both precision and recall. Fused CNN with LSTM for a granular, character-level analysis, marking a 20% elevation in the F1 score.

SKILLS

Languages: Python, Java, JavaScript, SQL, C, VBA, PowerShell, R, C++, PERL, Go

Web Development: Angular, React, Node.js, Flask, TypeScript, Bootstrap, MongoDB, DOM, Google Cloud Platform, HTML, CSS

Tools: PyTorch, TensorFlow, Alteryx, Tableau, Matlab, Anaconda, Jupyter, RStudio, Jira, Microsoft Suite, Git, Thunderhead

Coursework: Data Structures, Algorithms, Database, Foundations of AI, ML, Web Development, NLP, Object Oriented Programming