Kamalasankari Subramaniakuppusamy

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Education

The George Washington University, *Washington, DC* May 2026 (Expected)
Master's in Computer Science - GPA: 3.45/4.0

St. Joseph's College of Engineering, *Chennai, India* Nov 2020 - May 2024
Bachelor of Engineering - Electronics and Communication - GPA: 9.30/10

Relevant Experience

Lillup - Software Engineering Intern May 2025 - Nov 2025

- Led the development of the *Talent Passport* application, coordinating a team of 4 to build a scalable platform for cross-border skill verification and credentialing.
- Independently designed and implemented custom data parsers to extract, normalize, and validate information from heterogeneous sources, enabling seamless integration across internal systems.
- Designed and optimized tools for high-performance data serialization, transformation, and validation across formats including JSON, XML, Parquet, Avro, and CSV.
- Improved ETL pipeline efficiency by identifying and resolving compatibility bottlenecks in data ingestion workflows.
- Collaborated with engineers and data scientists to design scalable data modules and implemented unit/integration tests to ensure reliability and maintainability.

Most Recent Projects

CartCompass – Smart Shopping Software July 2025

- Engineered a location-aware retail price comparison platform that ingests multi-retailer feeds, normalizes units, and ranks public vs. membership promotions from nearest stores through regional rollups so users instantly find the lowest price.
- Integrated ML product resolution & data quality checks for anomaly detection flags to scrape errors, improving match reliability & user data trustworthiness.
- Delivered an end-to-end intelligent shopping flow with membership- & distance-aware rankings, live store hours, aisle/section/shelf lookup, & multimodal routing (transit/drive/bike/walk ETAs); logged user interactions to support continuous model tuning.

FakeReviewShield – Fake Online Reviews Detector May 2025

- Built an ML-based system for fake vs. original online product review detection, cleaned 150k multi-category Amazon dataset and extracted crucial features like upvotes, incentive flags, user history, supporting product photos and videos for purchase verification.
- Implemented Logistic Regression, Random Forest, and XGBoost from scratch, and created ensemble voting classifier with interactive CLI for user lookup and review text analysis.
- Improved validation accuracy from 63% to 98% after feature engineering and model ensembling; produced comparative visual analytics for model selection.

Technical Skills

Languages: Python, Java, C, SQL, HTML, CSS
Frameworks/Tools: Pandas, Flask, Git, Docker, AWS, PostgreSQL
Concepts: Object-Oriented Programming, REST APIs, Agile, Git/GitHub, CI/CD, Testing

Publications

YOLO: Roof Material Detection Using Aerial Imagery April 2024
Published in IEEE Explore - Awarded "The Best Paper" at the International Conference of Computing and Data Science
MalCodeAI: Autonomous Vulnerability Detection and Remediation July 2025
Accepted for publication at the IEEE IRI Conference 2025