

Pujitha Kallu

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[LinkedIn](#)

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Education

Santa Clara University – Master's in Computer Science
MGIT – Bachelor's in Electronics and Communication

GPA: 3.8/4

Sep 2023 – Jun 2025
Jul 2014 – Mar 2018

Technical Skills

- **Languages:** Python, Dart, C, C++, Java, JavaScript
- **Databases:** S3, DynamoDB, Kafka, SQL, SQLite, MongoDB
- **Technologies:** Flutter, Docker, Kubernetes, Prometheus, AWS, Elasticsearch, Postgres, JUnit, REST API, GCP, Git, Docker, JIRA, Bitbucket, REST APIs, Tableau, Power BI, Looker, Confluence
- **Courses:** Advanced Operating Systems (Teaching Assistant), Algorithms and Data Structures, Computer Networks, Computer Architecture, Machine Learning, Distributed Systems, Database Systems, Operating Systems, Web Technology, Object-Oriented Programming, Mobile Application Development

Work Experience

Frugal, Santa Clara University, Research Analyst

Santa Clara, CA

Jun 2024 – Present

- Integrated Bilingual Multi-Game Platform with Unified Login: Designed and developed a seamless web app that integrates multiple games under a single, secure 3-digit login system. Leveraged Firebase for authentication, hosting and personalized game access, ensuring a kid-friendly and engaging user experience. <https://fih-superset-dev.web.app/>. Designed interactive challenges with real-time progress tracking and multimedia support, achieving 95%+ completion rate in beta testing.

Santa Clara University, Teaching Assistant

Santa Clara, CA

Apr 2024 – Jun 2024

- Designed the course work for Advanced Operating Systems and assisted students. Guided students through implementation of Multithreaded programming projects, Memory management systems and Process scheduling algorithms. Created supplementary learning materials and coding examples, Provided one-on-one assistance. Graded programming assignments and provided detailed feedback

TechMahindra, Software Engineer

Genentech

Hyderabad, India

Sep 2020 – Jun 2022

- Spearheaded enterprise-wide cloud transformation initiative, successfully migrating mission-critical data systems from legacy infrastructure to AWS cloud platform. Achieved 99.9% system availability while delivering 30% reduction in operational maintenance costs. Orchestrated comprehensive data migration using AWS Database Migration Service (DMS) and engineered custom ETL solutions to ensure secure transfer of multi-terabyte customer datasets using python, SQL.
- Executed database performance optimization initiative through advanced query tuning and schema refinement, resulting in 40% improvement in query processing efficiency. Implemented strategic indexing strategies and query restructuring to enhance overall system responsiveness during large-scale data migration operations

TechMahindra, Associate Software Engineer

Roche (TR)

Hyderabad, India

Apr 2019 – Oct 2020

- Led development and optimization of mission-critical tax data collection applications, modernizing legacy VB6 codebase while maintaining compatibility with existing tax processing systems. Engineered comprehensive monitoring solution integrated with Looker analytics, enabling real-time tracking of data collection metrics and reducing processing errors by 81%. Implemented automated testing pipelines for tax calculation accuracy and data validation, ensuring compliance with US tax regulations.
- Orchestrated cross-functional collaboration with tax subject matter experts, UX designers, and development teams to enhance tax form processing workflows and user interface features. Established robust CI/CD infrastructure for seamless deployment of tax software updates, while maintaining extensive technical documentation for complex tax processing logic and data transformation rules. Developed custom ETL processes for importing tax data from various source systems, ensuring data accuracy and completeness throughout the collection pipeline.

Projects

Carpool Ridesharing. Tech-stack: Java, Spring Boot, HTML

Oct 2024

- Developed a carpool ridesharing application using Java and Spring Boot MVC, with features like user authentication, ride creation, search, and booking powered by RESTful APIs. Implemented database management with Hibernate and JPA, integrated Google Maps API for route optimization, and ensured security with Spring Security.

Odyssey-Solo Travel app. Tech-stack: Flutter, Firebase, Dart programming

Sep 2024

- Designed and developed a modular solo travel app using Flutter, with a clean folder structure ensuring scalability and maintainability. Integrated Google Maps API for location search, and Firebase Authentication for secure user access.

Product Recommendation System. Tech-stack: Python

Apr 2024

- Developed and implemented a product recommendation system using Machine learning models like KNN collaborative filtering, rank-based methods, and model-based techniques like matrix factorization, enhancing the personalization and accuracy of recommendations in e-commerce.

Peptide Classification Using Neural Networks. Tech-stack: Python

Mar 2024

- Developed a neural network model for peptide classification using advanced feature engineering, hyperparameter tuning, and the Matthews Correlation Coefficient, achieving high accuracy and robustness in identifying antibiofilm properties.

Stock Market Notification using Pub/Sub Implementation. Tech-stack: Java, Docker, HTML

Feb 2024

- Implemented a real-time stock ticker system with Pub/Sub communication for high-frequency updates and timely notifications using Java, HTML & CSS. Optimized message queuing and data broadcasting techniques to manage large stock data volumes efficiently. Designed for scalability and reliability, ensuring seamless performance under high loads. Utilized Docker for containerization, enhancing deployment flexibility and system scalability.

Webserver Implementation. Tech-stack: Python, html

Jan 2024

- Developed a multi-threaded web server using socket programming for HTTP 1.0/1.1 using python. Supported multiple client connections with efficient timeout management. Handled various HTTP error codes including 200, 400, 403, 404, and 501. Implemented request parsing and response generation for robust client-server communication.