

MALAY KOLADIYA

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EDUCATION

California State University, Fullerton

January 2022 – May 2024

- **Master of Science, Computer Science, (GPA – 3.77/4.00)**
- Courses: **Advanced Algorithms, Web Backend Engineering, Advanced Database Management Systems**, Introduction to Machine Learning, Advanced Blockchain Technologies, Artificial Intelligence

San Jose State University

January 2017 – May 2021

- Bachelor of Science, Aerospace Engineering, **Minor – Computer Science, (GPA – 3.87/4.00)**
- Courses: **Data Structures and Algorithms, Advanced C++**, MATLAB Programming

TECHNICAL SKILLS

- **Programming Languages:** Advanced - Python, JavaScript, Intermediate - C++, Rust, C, Core Java
- **Database:** NoSQL – MongoDB, Redis, SQL – PostgreSQL, MySQL
- **Web Development:** Flask, Express.js, React.js, Node.js, FastAPI, Socket.io, HTML, CSS, Tailwind CSS, Actix-Web
- **Cloud Services:** Amazon Web Services (EC2, S3, Fargate, Lambda, API Gateway), Docker, Kubernetes
- **Big Data Tools:** Hadoop, Spark, MapReduce, Kafka
- **Tools:** Git, Microsoft Visual Studio Code, Jupyter Notebook, PyCharm

WORK EXPERIENCE

Graduate Researcher, Digiclips Inc.

January 2023 – May 2023

- Spearheaded the integration of a Video Text Recognition Docker container, aligning with project requirements for Free-To-Air Antenna Television data processing
- Devised an automated data workflow, facilitating the efficient ingestion and processing of video files within the container ecosystem
- Configured and maintained a MySQL database for effective storage of textual data derived from video files
- Rectified crash issues in speech-to-text container, stabilizing the text extraction pipeline.
- Documented the docker container's API endpoints and internal operations to support ongoing development and team collaboration

PROJECTS

JobsNearby – Job Search Portal | Flask, React, AWS Lambda, API Gateway

August 2023 – April 2024

- Architected a job search platform with user authentication, job listings, and profile management features for employers and applicants
- Designed scalable system using AWS Lambda and API Gateway, leveraging MongoDB and Redis for data management
- Optimized performance by implementing lazy loading, caching, and reducing unused CSS/JS, achieving a Lighthouse score of 81

JWT Authentication System | Rust, Actix-Web, Auth0, PostgreSQL

January 2024 – February 2024

- Incorporated Auth0 for robust authentication management and implemented JWT validation
- Built a scalable REST API using Actix-web and Diesel ORM for efficient and type-safe database operations

Real-Time Chat Application | MERN, Socket.io, Daisy UI, Tailwind CSS

January 2024 – February 2024

- Developed a real-time communication platform, integrating Socket.io for live messaging and user status within a MERN architecture, complemented by React and Tailwind CSS front-end that ensures intuitive navigation and seamless user experiences
- Facilitated JWT-based authentication and designed MongoDB schemas to safeguard and manage user data effectively

Real-time Stock Market Data Streaming | AWS EC2, Databricks, Kafka

January 2023 – May 2023

- Designed real-time stock market data streaming pipeline using Apache Kafka clusters hosted on AWS EC2 instance. Integrated data from Yahoo Finance & Kaggle for user-driven investment decisions
- Utilized PySpark & Spark Structured Streaming for real-time data processing & analysis within the Databricks environment, built dashboards to visualize market trends & metrics

Wordle Web Backend Application | Quart, Nginx, Redis, SQLite

August 2022 – December 2022

- Developed Wordle's backend infrastructure and RESTful APIs, incorporating leaderboard for real-time score updates
- Implemented a scalable and fault-tolerant database system using SQLite with data replication, ensuring data integrity and availability
- Optimized system resilience and performance with Nginx for HTTP reverse proxy and load balancing, alongside Redis Queue for enhanced message queuing between decoupled applications and webhooks integration for microservices event handling

Myers-Briggs Personality Test Indicator | Pandas, NumPy, NLTK

January 2022 – May 2022

- Implemented and compared performance of 4 machine learning classifiers (SVM, Random Forest, K-NN, and Logistic Regression) to predict MBTI personality types based on textual data
- Conducted data preprocessing and feature engineering on dataset of 10K+ rows, including Lemmatization and Vectorization
- Utilized libraries, including Pandas, NumPy, Matplotlib, Natural Language Toolkit, Scikit-Learn, and Imbalanced-Learn
- Evaluated effective classifier using confusion matrices, precision, recall, and F1-score metrics