ALEX C. ZAHARIA

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EDUCATION

California Polytechnic State University - San Luis Obispo (Cal Poly)   **September 2020 - June 2024**
Bachelor of Science in Computer Science, Dean's List, Major GPA: 3.1

Universidad Carlos III - Madrid, Spain   **September 2022 - December 2022**
Study Abroad, Fall 2022, GPA: 3.6

SKILLS

Soft: Leadership, Entrepreneurship, Adaptability, Communication, Problem-Solving, Creativity, Organization
Programming Languages: Python, Java, C, JavaScript, HTML, CSS, RISC-V, ARM, LC3
Database: SQL (MySQL, SQLite3, PostgreSQL), NoSQL (MongoDB, DynamoDB)
ML/Data Science: scikit-learn, NumPy, Pandas, matplotlib, Apache Spark (PySpark), Hadoop, MapReduce, RDD
Software Engineering: OOP, Agile, CI/CD, Unit Testing (Jest, TDD), Figma, UML, Azure
Tools & Platforms: Git, Unix, Google Cloud, AWS, Supabase, Firebase, VS Code, IntelliJ IDEA, Eclipse, PyCharm

WORK EXPERIENCE

Computer Science Tutor at *Grade Potential*   **June 2023 - Present**
Mentored over 30 students to reach their academic computer science goals
- Designed personalized lesson plans, study material, and hands-on projects for Java, Python, SQL & hardware

Software Engineer Intern at *206 Realty*   **June 2022 - August 2022**
Developed a Python tool to prioritize client leads, increased client conversion efficiency rate by 22%
- Pre-processed and merged over 50,000 rows of potential client data from internal databases into CSV format
- Designed an algorithm to prioritize client leads based on conversion likelihood
- Integrated the process into the employees daily workflow and monitored performance to ensure effectivity

PROJECTS

GridIron GPT, *Individual Project*   **September 2023 - Present**
Developed a full-stack hub in React for NFL and fantasy football fans
- Web Scraped and Pre-Processed over 300,000 rows of authentic player and team data from NFL and ESPN
- Designed a UML diagram and developed Supabase database to manage user authentication and NFL data
- Developing a search engine utilizing OpenAI API to convert user queries into PostgreSQL queries
- Optimizing ML predictive models: player projections, matchup analysis, lineup and trade recommendations
- Designed interactive and user-friendly frontend components, enhancing user engagement

Haggle, *Group Project*, Cal Poly   **January 2024 - June 2024**
Led efforts in a team of 5 to create an online marketplace for members of the SLO community
- Maintained a detailed product backlog, developed high priority user stories, personas, and documentation
- Designed UML and Figma models for planning frontend/backend designs
- Handled user authentication (login, sign-up, password management), integrating OAuth and nodemailer
- Leveraged TalkJS API for developing chat features (chat rooms and inbox), allowing users to communicate
- Implemented unit testing with Jest, TDD, and managed CI/CD pipelines for Azure deployment

Predictive Modeling Tool for Real Estate Prices (In the USA), *Group Project*, Cal Poly   **June 2024**
Developed a ML tool to predict U.S. home prices and evaluate performance of models
- Pre-Processed data and conducted Exploratory Data Analysis (EDA)
- Evaluated multiple ML models (Linear Regression, Decision Trees, Random Forest, Gradient Boosting) using RMSE and CV scores to identify the most accurate, yet time effective model
- Implemented hyperparameter tuning and CV using GridSearchCV, increasing model accuracy up to 63%
- Integrated the predictive tool into a user-friendly interface, providing real-time price predictions