# Alex Zaharia

### **EDUCATION**

California Polytechnic State University

Bachelor of Science in Computer Science

Universidad Carlos III de Madrid

Study Abroad

San Luis Obispo, CA Sept. 2020 – Aug 2024

Madrid, Spain

Sept. 2022 – Dec 2022

### Experience

### Computer Science Tutor

Grade Potential

June 2023 – Present

San Luis Obispo, CA

- Empowered 30+ students to reach their academic computer science goals
- Personalized lesson plans, study material, and hands-on projects for Java, Python, SQL and web development

## Software Engineer/Real Estate Sales Intern

June 2022 – August 2022

206 Realtu

Bellevue, WA

- Collaborated with my manager to fully redesign the internal database schema and data collection processes
- Analyzed historical conversion trends to identify key factors for successful client acquisition
- Developed a lead prioritization tool in Python, boosting lead conversion rate by 28%
- Executed 2,000+ cold calls, strategically identifying and setting up high-priority leads for further engagement

#### **PROJECTS**

Gridiron GPT | Python, React, PostgreSQL, OpenAI, nfl-verse, Supabase

April 2024 – Present

- Spearheading the full-stack React development of a NFL Fantasy Football platform
- Automated a data pipeline to scrape, clean, and aggregate 10+ NFL-related sources on a daily basis
- Architected UML diagrams and Supabase database to manage over 300,000 entries of user and NFL data
- Leveraged the OpenAI API to build a dynamic search tool, transforming user queries into PostgreSQL queries
- Built a drafting tool, trade analyzer, rankings and matchups tables to optimize lineups and trades
- Optimizing ML models using scikit-learn to generate projections and analyze matchups
- Integrating with ESPN, Yahoo, and Sleeper to allow for personalized fantasy football recommendations

### Predictive Modeling Tool for Real Estate Prices (In the USA) | sci-kitlearn

June 2024

- Developed a ML tool to predict U.S. home prices and evaluate performance of models
- Pre-processed real estate data from Kaggle 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
- Increased models' accuracy up to 63% by implementing hyperparameter tuning and CV using GridSearchCV
- Integrated the predictive tool into a user-friendly interface, providing real-time price predictions

### Haggle | React, MySQL, PostgreSQL, TalkJS, GCP, AWS, Supabase

January 2024 – June 2024

- Took initiative to lead and motivate a cross-functional team of five to develop a full-stack online marketplace
- Monitored project progress, timelines, and resource allocation, ensuring all milestones were being met
- Developed and managed high-priority user stories, personas, and a comprehensive product backlog in Github
- Designed UML and Figma models for planning frontend/backend designs
- Handled user authentication (login, sign-up, password management), integrating OAuth and nodemailer
- Leveraged TalkJS for developing chat features (chat rooms and inbox), allowing users to 'haggle'
- Implemented unit testing with Jest, TDD, and managed CI/CD pipelines for Azure deployment

### SKILLS

Soft Skills: Leadership, Adaptability, Decision-Making, Collaboration, Problem-Solving, Creativity, Organization

Languages: Java, Python, C/C++, JavaScript, SQL (Postgre, MySQL, SQLite3), NoSQL (MongoDB), HTML/CSS, R Software Engineering: React, Agile, TDD, CI/CD, Unit Testing (JUnit, Jest), OOP

Data Science & ML: scikit-learn, NumPy, pandas, Matplotlib, Apache Spark (PySpark), Hadoop, MapReduce Cloud Platforms: Google Cloud Platform (GCP), AWS (S3), Supabase, Azure

Developer Tools: Git, Docker VSCode, IntelliJ, PyCharm, GitHub, Unix, Figma, UML, Illustrator, Photoshop

APIs & Libraries: REST, OpenAI, Leaflet, TalkJS, OAuth, nodemailer, bcrypt, crypto, nfl-verse