April Huang

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EDUCATION

University of California, San Diego   **Expected June 2027**
Bachelor of Science, Double Major in Mathematics-Computer Science & Data Science

EXPERIENCE

Incoming Data Analytics Intern, GoFundMe - San Francisco, CA   *Jun. 2025*
Instructional Assistant, UC San Diego - San Diego, CA   *Jan. 2025 - Present*
- Academic tutor for CSE 11: Accelerated Introduction to Programming, CSE 12: Data Structures & Basic Object-Oriented Design, and DSC 30: Data Structures and Algorithms for Data Science.
- Tutored students on introductory Java programming concepts and object-oriented programming.
- Collaborated with professors and tutors to grade assignments and lead problem solving sessions.

Software Developer, UC San Diego Data Science Student Society - San Diego, CA   *Oct. 2024 - Present*
- Redesigned ds3ucsd.com website using Svelte and JavaScript/TypeScript, adding dynamic features and improving performance on mobile for 100+ users.
- Designed and maintained a scalable backend architecture utilizing MongoDB and Express.js, ensuring efficient data retrieval and robust API performance.

PROJECTS

Anomaly Detection & Time Series Forecasting - OutOfTheBlue.ai   *Apr. 2025 - Present*
- Conducted hierarchical time series forecasting using **Facebook Prophet** to analyze customer behavior patterns across product categories and regions, improving accuracy in demand prediction and resource allocation for ecommerce operations.
- Performed anomaly detection using **DBSCAN** on key ecommerce metrics, enabling early identification of abnormal trends such as traffic spikes or sudden drops in sales.
- Leveraged **polars** and **pandas** for high-performance data wrangling and exploratory analysis, handling large-scale transactional and customer interaction data efficiently across multiple time granularities.
- Developed automated pipelines and visual reports for use in product strategy.

Triton Consulting Group Application Portal   *Feb. 2025 - Mar. 2025*
- Utilized **MERN stack** and **Firebase** authentication to develop a secure and scalable application portal, enabling seamless user registration, login, and session management.
- Designed intuitive UI components to enhance user experience and streamline navigation.
- Developed a **MongoDB** database to support distinct user views, implementing role-based access controls.

Recipe Analysis Model - *aprilhuang39.github.io/recipe-analysis/*   *Nov. 2024 - Dec. 2024*
- Designed and developed a machine learning pipeline leveraging **pandas** and **scikit-learn** to predict recipe preparation times, utilizing a dataset of 80,000+ recipes and 700,000+ user reviews from Food.com.
- Implemented and fine-tuned **Random Forest Regressor** and **Decision Tree Regressor** models, optimizing hyperparameters to analyze the impact of features such as ingredient count, preparation steps, and user ratings.
- Performed a **fairness analysis** using permutation testing to evaluate model performance consistency across recipes created before and after 2012, identifying significant disparities and areas for improvement.

ACTIVITIES

Data Science Student Society - Software Developer   *Oct 2023 – Present*
- Led front-end development and workshops on personal websites and Git/version control.

Triton Consulting Group - *Technical Associate*   *Jan 2025 – Present*
- Contracted as a technical consultant for OutOfTheBlue.ai

SKILLS & TECHNOLOGIES

Languages/Tools: Java, Python, SQL, JavaScript, TypeScript, C++, C, HTML/CSS, R, MATLAB, Git, GitHub
Frameworks/Libraries: React.js, Node.js, Express.js, MongoDB, pandas, polars, scikit-learn, Svelte, Beautiful Soup