

# Edward Song

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## Education

**University of California Riverside**

**Riverside, CA**

**Major:** Computer Science (B.S)

**September 2020 – Ongoing**

2022 Dean's Honors List

**Relevant Courses:** Database Management Systems, Data Analysis Methods, Machine Organization and Assembly

**Outside Education:** 6 years of AMC mathematics competition experience, BSA Eagle Scout (Oct. 2020)

## Projects

**Bitcoin Price Forecasting utilizing Machine Learning Models for Time Series**

**Riverside, CA**

**May 2024 – July 2024**

- Developed predictive models to forecast Bitcoin prices using historical daily price data from September 2014 to June 2024 collected from Yahoo Finance.
- Preprocessed data through z-score normalization and advanced feature engineering (optimizing technical analysis parameters to improve model performance). Utilized Pandas, NumPy, Scikit-learn, Tensorflow, and GridsearchCV for data manipulation, model development, and optimizations.
- Designed and executed Long Short Term Memory and k-Nearest Neighbors regression models to predict Bitcoin closing prices over 2 years and achieved a remarkably low mean squared error of 0.0503 to measure model performance, beating several research papers.

**Cars-n-Pics**

**Los Angeles, CA**

**June 2024 – Ongoing**

- Led full stack development of client matching app for car enthusiasts and multimedia creators (HTML, REACT, Tailwind, Node.js, Python, PostgreSQL).
- Utilized machine learning clustering alongside elo ratings to match photo-videographers with car enthusiasts using user preferences as features.

**Fynance**

**Los Angeles, CA**

**November 2023 – Feb. 2024**

- AI app that utilizes OpenAI's GPT model through RESTful API integration in order to create personalized long-term plans for debt management, building capital, and building credit efficiently using basic financial information from users.
- Leveraged OpenAI's GPT3.5 large language model in order to significantly reduce local load and run complex financial calculations externally.

## Experience

**Rapid Networks**

**Los Angeles, CA**

**Logistics Staff**

**June 2020 – September 2020**

- Demonstrated expertise in effectively managing back-end software to monitor and streamline inventory flow within storage facilities.
- Partnered with leading defense industry leaders including Hyundai J-Com, Korea Aerospace Industries, and Doosan Mottrol to ensure the quality and accuracy of orders for many industries including defense.

**Network Expert Group (NexG)**

**Los Angeles, CA**

**Technical Support Engineer**

**June 2020 – September 2020**

- Transferred and set up NexG's Data Center. Efficiently routed and set up data racks for NexG's colocation and server hosting service.
- Established routers, switches, hubs, and wiring into businesses around Los Angeles county alongside office telecommunication and data servers while ensuring adherence to industry standards.

## Skills

**Programming Languages:** C++, C, Python, SQL, mySQL, PostGreSQL, JavaScript, Go (Golang), HTML, CSS

**Frameworks/Libraries:** Next.js, React.js, jQuery, Tailwind, PyTorch, Pandas, NumPy, TensorFlow, Keras

**Tools:** Git, Github, Microsoft Visual Studio, CodeBlocks, Colab