# Colin Li

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## Education

**University of California, San Diego** — San Diego, CA
*B.S. Computer Engineering (3.6 GPA)* — *Sept. 2021 – Dec. 2024*

## Experience

**Software Engineering Intern** — Jul. 2023 – Present
*Evil Geniuses* — *Los Angeles, CA*

- Developing an LSTM model to evaluate 1,000 professional players' performances, aiding in scouting and identifying key areas for team improvement, ultimately enhancing the team's competitive edge.
- Collaborating with partnerships to assess the value of different locations of a sponsor's logo on our jersey by training a custom image detection model (YOLOv5) with PyTorch to measure logo viewership, and implement post-processing to filter out false positives – resulting in cost savings of $75,000 annually.
- Designing and implementing an automated data acquisition and storage framework using AWS Lambda, S3, and EC2, creating ETL pipelines that collect and store over 1 TB of data from 4 APIs in a PostgreSQL database, reducing coaching staff's manual data extraction by 10 hours a week.
- Creating a responsive data visualization tool for our database using ReactJS, enabling stakeholders to intuitively explore and analyze over 1TB of data.

**Founder** — Jan. 2021 – Present
*Macrohard LLC* — *Chicago, IL*

- Developing programs to perform ETL of big data from professional esports games including a Python program that tracks 300+ players to allow for streamlined scouting.
- Employing APIs, process memory reading, and computer vision to feature engineer 30 new statistics requested by analytic stakeholders.
- Utilizing Python and SQL to create a 50,000+ entry dataset to create a machine learning model using pytorch that makes live-updating predictions of the outcome of a game.
- Leading a team of 7 to develop, market, and sell our products to 5 different companies in the esports industry, achieving revenue of over $15,000.

## Projects

**Explorer** | *Node.JS, Express.js, React, MySQL, EJS* — Sept. 2023 – Present

- Creating a website and app using React that tracks and visualizes users travel experiences, automatically marking visited locations allowing them to uncover their journey over time.
- Designing and implemented a custom RESTful API to interface with a popular location-sharing application, enabling real-time location tracking for users.
- Engineering efficient algorithms for the MySQL database to expedite the retrieval and processing of over 30,000 datapoints on the server side, enabling instantaneous loading of location data for users and enhancing overall website performance.

**Self Driving Car** | *Python, Tensorflow, OpenCV* — Jan. 2023 – Jun. 2023

- Developed a self-driving car prototype using Raspberry Pi as the core hardware platform.
- Implemented lane-following algorithms using OpenCV to enable the car to stay within marked lanes.
- Integrated motors and sensors to control the vehicle's movement and ensure safe navigation.

## Technical Skills

**Languages**: Python, C/C++, Java, JavaScript, HTML/CSS, SQL
**Frameworks**: React, Node.js, Express.js, Flask, Pillow, NumPy, Pandas, PostgreSQL, MySQL, Matplotlib, JUnit, AWS, SocketIO, YOLO, OpenCV, MongoDB, TensorFlow
**Other Skills**: REST APIs, Agile, Github, Data Science, Data Structures, Unit Testing, Object-Oriented Design Principles, Relational/NoSQL databases, Cloud Computing Platforms, CI/CD, Distributed Systems

## Accomplishments

**Challenger League of Legends Player**
**UCSD Esports Scholarship** - May 2023