

ERIK P. WILLIAMS
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Education

Fullerton, CA	California State University	Aug 2022-May 2025
- Major: Computer Science, B.S.		
Los Angeles, CA	UCLA Extension	Feb 2022-Aug 2022
- Certificate: Full-Stack Web Development		
CS Coursework: Algorithms & Data Structures, Operating Systems, Networks, Software Arch.		
UCLA Coursework: Full-Stack Web Development, Database Systems, Browser Based Technologies, Deployment.		

Skills

Software: (proficient): Typescript, Python Unix, Git (familiar): C, SQL, HTML/CSS

Software Projects

Personal Website: <https://froala-portfolio.netlify.app/> (for additional information and projects)

SOXL/SOXS Automated Trading Application

- Summer school project. Developed an automated trading system for two leveraged ETFs, SOXL and SOXS. It follows the Model-View-Controller (MVC) architectural pattern.
- Created a user interface that allows the user to enter a symbol (SOXL or SOXS) and a date range and display a historical graph
- Implements a Simple Moving Average (SMA) crossover strategy for trading SOXL and SOXS. Evaluates the performance of the trading strategy through backtesting by calculating \$gain or \$loss for each trade, the total \$gain or \$loss for all trades, % return as of today compared to the initial balance and produces results in .csv format.
- Utilized: TypeScript, JavaScript, HTML/CSS, Yahoo-Finance API, Electron.js.

Website for Real-Time Interactive 3D Graphics

- Website that offers interactive 3D graphics in real-time. Utilizing TypeScript and Three.js.
- Developed a 3D workspace that features animated 3D models of crystal structures and circular parts. Both the animations and camera views can be manipulated by the user for an immersive experience.
- Created from the challenge faced while trying to visualize 3D models of different shapes mentally. Led to the development of this educational tool that aids in understanding complex structures through real-time visualization.
- Tech Used: TypeScript, Three.js, JavaScript, AJAX, HTML/CSS, and Git.

Social Media Clone(<https://gql-client-epw.herokuapp.com/>)

- Users can share their thoughts as well as images with other users. Users can create, update, and delete posts.
- Tech: GraphQL, Mongo, Express, React, and Node for a true real-time web application.
- Frontend: React, React Router and Apollo Client for performing Queries, Mutations and Subscriptions. Including Context API to achieve Redux like architecture.
- Also used: MySQL, JWT, React, Redux, Bootstrap

MERN-Book-Search (<https://warm-beach-66290.herokuapp.com/>)

- Google Books API search engine built with a RESTful API into a GraphQL API built with Apollo Server.
- MERN stack, with a React front end, MongoDB database, and Node.js/Express.js server and API.
- First bootcamp project created to show the understanding of MERN.
- Led team development.

Just Tech News (<https://pythonnewsfeed.herokuapp.com/>)

- Developed using Flask. Users can submit links to tech-related articles, comment on other users' articles, and upvote articles for points.
- Created to show the understanding of concepts like requests, templates, models, conditionals, and errors remain the same across different languages.
- Also Used: Python, SQL Alchemy, Jinja