

# Long Guan

Full Stack Software Engineer | Seattle, WA | [long.w.guan@gmail.com](mailto:long.w.guan@gmail.com)  
[linkedin.com/in/longguan](https://www.linkedin.com/in/longguan) | [github.com/long-guan](https://github.com/long-guan) | <https://long-guan.github.io/portfolio/>

## TECHNICAL SKILLS

**Programming Languages** | JavaScript, Python, SQL, HTML, CSS

**Front-End** | React, Bootstrap, Tailwind

**Back-End** | Django, FastAPI, PostgreSQL, AWS RDS, Docker

**System Design & Cloud** | Domain-driver design, RESTful API, Microservices, AWS EC2, AWS Elastic Beanstalk

## APPLICATION DEVELOPMENT EXPERIENCE

**Stevens Pass iMap** | Full-Stack Software Engineer | [GitHub](#) | *React, Django, Tailwind, PostgreSQL, AWS* 2023  
*Single-Page CRUD application to view, like, and add videos or comments to ski trails of Stevens Pass*

- Utilized refresh tokens to grant authenticated users access, enhancing the user experience by enabling them to remain logged in for 7 days without the need to reenter credentials
- Converted all image formats to webP, increasing site load speeds by over 9% and reducing data consumption by the same margin while maintaining image quality
- Enables interaction with the map using solely frontend code, minimizing the need for API calls except when accessing videos or comments, ultimately reducing operational costs on the backend server
- Deployed Django backend server with PostgreSQL database using AWS Elastic Beanstalk, EC2, and RDS, enabling users to send API calls to the server from anywhere

**Long Loved Classic Games** | Full-Stack Software Engineer | [GitHub](#) | *HTML, CSS, JavaScript* 2023  
*A web application to play Battleship, Tic Tac Toe, and Lazy Knight built with vanilla HTML, CSS, and JS*

- Implemented Minimax algorithm with recursion in Tic Tac Toe to create an unbeatable computer opponent
- Created variance in Tic Tac Toe by randomly choosing the computer's next moves that has same minimax score (same minimax score indicate that the outcome of the game will be the same)
- Leveraged breadth-first search algorithm in Lazy Knight to calculate the least number of moves required for the knight to travel from one square to another
- Utilized a set of boolean variables in Battleship to imitate human player logic to ensure that the computer attacks the adjacent coordinates until the opponent's ship is sunken after the computer lands a hit

**Green Beings** | Full-Stack Software Engineer | [GitHub](#) | *Bootstrap, Python, FastAPI, React, PostgreSQL* 2023  
*A planning application for users to plan/create communities and events to better the environment*

- Secured site using JWT (JSON Web Token) for backend and frontend authentication and authorization
- Collaborated within an agile team of four, leveraging wireframes, user stories, and merge request reviews, resulting in enhanced flexibility and better communication

## PROFESSIONAL EXPERIENCE

**Barghausen Consulting Engineers, Inc** | Design Engineer 2019–2023

- Designed and drafted construction plans for 60+ total projects in the west coast area with 15+ of the total projects being completely constructed
- Trained new engineers in Autodesk Civil 3D with emphasis on best practices and latest CAD features, resulting in their increased design efficiency and reduction in design errors
- Communicated effectively with contractors and clients to solve any unexpected construction problems, resulting in improved project timelines and enhanced client satisfaction

## EDUCATION

**Hack Reactor** | Advanced Software Engineering Certificate 2023

**University of Washington** | Bachelor of Science in Civil Engineering 2019