# Long Guan

Full Stack Software Engineer | Seattle, WA | long.w.guan@gmail.com
linkedin.com/in/longguan | 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** | 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*
- Provides the ability to interact with the map using only the frontend code without the need for backend except when viewing videos or comments, reducing backend operational cost
- 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
- Implemented authentication and authorization using JWT (JSON Web Token), preventing unauthorized users from adding videos, liking videos, or adding comments

**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 theory 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 means the outcome of the game will be the same)
- Used 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
- Used a set of boolean variables in Battleship to ensure that the computer will attack adjacent coordinates until the opponent's ship is sunken after the computer lands a hit, imitating human logic

**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*
- Implemented JWT (JSON Web Token) for backend and frontend authentication and authorization
- Employed normalized PostgreSQL to store users, events, and community data, resulting in increased performance, memory savings, and reduced data duplication
- 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 by Galvanize** | Advanced Software Engineering Certificate                                     2023
**University of Washington** | Bachelor of Science in Civil Engineering                                     2019