

# ALLEN TAN

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## Summary

Driven software engineer, changing careers after 6+ years as a mechanical engineer. Invested in growing stronger as an engineer by learning new skills and expanding expertise. Enjoy the challenge of finding solutions to complex problems by breaking them down into manageable pieces.

## Technical Skills

**Languages:** JavaScript, TypeScript, Ruby, HTML/CSS, SQL  
**Frameworks/Libraries:** React, Express, Ruby on Rails, Bootstrap  
**Other:** Git, Chai, RSpec, CouchDB (noSQL)

## Relevant Experience

**Edge** **May 2021 – Present**  
*Software Engineer Intern* *San Diego, CA*

- Built the backend of a server that maintains the daily minimum amount needed to produce a swap for multiple cryptocurrencies using Node and Express
- Developed a snack bar web application in React that fetches cryptocurrency exchange rates using promises, and shows a QR code for payment when the user selects a currency
- Reviewed code on PRs (pull requests) for Edge's fee tracker and theme server
- Maintained clean Git commit history for contributions to open-source codebase by utilizing amend, rebase and cherry-pick
- Created unit tests using Chai and Mocha for utility functions that helped retrieve and insert provider swap information into a CouchDB (noSQL) database

## Projects

**Edge Swap Server** | *TypeScript, Node, Express* **Aug 2021**

- Built a server that maintains the swap information for multiple providers and cryptocurrencies
- Created a helper function that utilizes the binary search algorithm to find the minimum amount
- Wrote middleware in Express that gets the latest minimum amount information from the database

**Edge Snack Bar** | *TypeScript, React* **Jun 2021**

- Developed an application to generate payment QR codes for Edge's in-office snack bar
- Created a helper function to asynchronously fetch exchange rate data for 17+ cryptocurrencies using promises
- Utilized React and CSS to make a responsive web application

**Pokedeck** | *JavaScript, Ruby on Rails, React, RSpec, Enzyme* **Apr 2021**

- Developed a Pokemon Trading Card Game where users compete to have the most valuable collection
- Designed back end API that allows users to claim their initial booster pack of 10 cards, claim their card that becomes available after 24 hours, and view their ranking
- Produced unit tests for the back end controllers using RSpec, and for the front end React components using Enzyme

## Other Experience

**Solar Turbines (via Volt)** **Jan 2017 – Dec 2020**  
*Senior Engineer (NPI Combustion Mechanical Design)* *San Diego, CA*

- Developed dozens of new combustion components, including fuel injectors, liners, and fuel systems, using computer-aided design (CAD) and multiphysics simulation software

**Mikroscan Technologies, Inc** **Jan 2015 – Jan 2017**  
*Mechanical Design Engineer* *Carlsbad, CA*

- Managed multiple aspects of the SL5 hardware, including design, procurement, and inventory management

## Education

**San Diego State University** **2012 – 2015**  
*Master of Science in Mechanical Engineering* *San Diego, CA*

**University of California, San Diego** **2007 – 2012**  
*Bachelor of Science in Mechanical Engineering* *La Jolla, CA*