

# DAN TAN

## SOFTWARE DEVELOPER

## Summary

A self-driven engineering graduate with a track record of rigorous problem-solving and 2+ years of consistent programming. I enjoy working across the stacks and preach teamwork and testing for agile software development. With prior experiences in consulting, research, and entrepreneurship, I care deeply about delivering functional and intuitive products to clients and users.

## Projects

- Cryptofolio** Mar. 2021  
**Tech Stack:** JavaScript, React, Chart.js, Material-UI, Sass, Express, ElephantSQL
- Built a responsive portfolio single page application with intuitive and custom data visualizations
  - Designed relational database tables & REST API endpoints and utilized public APIs to consume data
- Scheduler** Feb. 2021  
**Tech Stack:** JavaScript, Storybook, React, Express, Postgres, Jest, Cypress, CircleCI
- Implemented WebSockets and reducers for facilitating real-time interview appointments
  - Adopted CI/CD and test-driven development by writing unit, integration, and E2E tests
- Jungle** Mar. 2021  
**Tech Stack:** Ruby on Rails, Bootstrap, Postgres, RSpec, Capybara, PhantomJS
- Developed new product features, feature tests, and user authentication for an Amazon clone
- Crawler** June 2020  
**Tech Stack:** C, Valgrind, libcurl
- Created an asynchronous and multithreaded crawler for downloading PNG files

## Employment

- Simpson Gumpertz & Heger** San Francisco, US  
**Consulting Intern** Sept. 2019 to Dec. 2019
- Evaluated design alternatives based on engineering physics and best practices
  - Collaborated with project managers for providing proposals and recommendations to clients
  - Created visualizations to simplify the design process by parsing design codes and standards
- Water Institute - University of Waterloo** Waterloo, CA  
**Research Developer** May 2018 to Aug. 2018
- Measured model's forecasting accuracy by analysing time-series output through R's dynamic time warping package
  - Analysed and tested interflow and infiltration algorithms for a computational hydrology model
  - Presented research summary at the Canadian Geophysical Union Conference to researchers
- EllisDon** Ottawa, CA  
**Project Coordinator** Sept. 2017 to Dec. 2017
- Conducted QA inspections, cost estimation, project planning & scheduling in a 200+ people team
  - Acted as a liaison among subcontractors and project managers by identifying and reporting outstanding issues

## Awards

- CS50 AI Certificate** Dec. 2020
- Completed 12 AI projects and 7 quizzes including optimizations, neural networks, and ML
- Hult Prize Waterloo Finalist - For Us, By Us** Nov. 2018
- Pitched and mocked a handicraft e-commerce platform to empower young women in developing countries by creating employment opportunities and connecting them with global consumers
- UW Warriors Varsity Tennis** Fall 2018
- Trained and competed in provincial season playoff as a top 4 team while completing full-time study

## Contact

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## Skills

### LANGUAGES

Python  
SQL  
JavaScript  
TypeScript  
Ruby  
HTML5  
Sass  
C/C++

### FRAMEWORKS & LIBRARIES

React  
Redux  
jQuery  
Bootstrap  
Express  
Rails  
Jest  
Cypress  
TensorFlow

### TOOLS

Git  
Docker  
CircleCI  
Heroku  
Unity  
Figma

### DATABASES

Postgres  
MongoDB

## Education

- Lighthouse Labs** Mar. 2021  
Diploma, Full-Stack Web Development
- University of Waterloo** 2015 to 2020  
Bachelor of Applied Science, Civil Eng.  
CS: Algorithms & Data Structures, Systems Programming & Concurrency, Databases & Software Design, Pattern Recognition
- University of Leeds** Jan. 2019 to June 2019
- Conducted numerical computation of heat and fluid flow in microchannels using MATLAB and Ansys