

Dan Tan

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TECHNICAL SKILLS

- Languages: Python, JavaScript, Ruby, C, C++, MATLAB, SQL, HTML, CSS
- Frameworks & Libraries: React.js, Express (Node), jQuery, Rails, Jest, Cypress, TensorFlow
- Tools: CircleCI, Heroku, Docker, ClickUp, Git, Figma, AutoCAD

EXPERIENCE

Software Developer (Full-Stack)

Dec 2020 – Mar 2021

Lighthouse Labs, Vancouver

- Designed relational database schemas and REST API endpoints using Express, Node, and PostgreSQL
- Designed modular and responsive single-page user interfaces using jQuery, React, and Storybook
- Adopted test-driven development by writing unit, integration, and end-to-end tests in Jest and Cypress
- Refactored legacy code, identified code smells, and utilized design patterns to create reusable components

Research Assistant

Apr – Aug 2018

University of Waterloo – Water Institute, Waterloo

- Measured model's forecasting accuracy by analysing time-series output with R's dynamic time warping package
- Analysed and tested interflow and infiltration algorithms for a computational hydrology model – MESH
- Presented research summary at the Canadian Geophysical Union Conference to leading hydrology researchers

Technical Consultant (Intern)

Sep – Dec 2019

Simpson Gumpertz & Heger, San Francisco

- Evaluated design alternatives based on project requirements, product comparisons, and engineering principles
- Wrote client reports detailing proposals and recommendations in collaboration with senior project managers
- Created design workflow visualizations and graphics by parsing engineering design codes and standards

Project Coordinator

Sep – Dec 2017

EllisDon, Ottawa

- Conducted QA inspections, material cost estimation, and project planning and scheduling in a 200+ people team
- Acted as a liaison among subcontractors and project managers by identifying and resolving outstanding issues

EDUCATION

Bachelor of Applied Science, Civil Engineering (BAsC)

Sep 2015 – Oct 2020

University of Waterloo – Waterloo, Canada

- *Technical Courses:* Databases & Software Design, Systems Programming & Concurrency, Algorithms & Data Structures, Numerical Computation, Advanced Calculus & DEs, Probability & Statistics, Pattern Recognition & AI
- *Organizations:* Engineers Without Borders, Varsity Tennis Team, Hult Prize Entrepreneurship Campus Finalist

Diploma, Full-Stack Development

Dec 2020 – Mar 2021

Lighthouse Labs, Vancouver

- Object-Oriented Programming, Declarative Programming, Test-Driven Development, Collaborative Development

Academic Exchange

Jan – Jun 2019

University of Leeds – Leeds, United Kingdom

- Conducted numerical computational analysis of heat and fluid flow in microchannels using MATLAB and Ansys

PROJECTS

- Designed an interview scheduler app using React, WebSocket, and Storybook and tested with Jest and Cypress
- Wrote an asynchronous web crawler with libcurl for searching and downloading PNG URLs from a server
- Built a responsive twitter clone powered by AJAX requests using jQuery, Node, and Express
- Architected a convolutional neural network in TensorFlow that identifies traffic signs with 97% accuracy