

Dan Tan

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TECHNICAL SKILLS

- Languages: SQL, Python, Ruby, JavaScript, HTML, CSS, C, C++, MATLAB, R
- Frameworks & Libraries: React, Express, Mongoose, Rails, Jest, Chart.js, Material-UI, Bootstrap, TensorFlow
- Databases & Tools: PostgreSQL, MongoDB, MS Excel, Git, Figma, AutoCAD

EXPERIENCE

Software Developer

Jan 2020 – Present

- Designed relational schemas, set up databases, and wrote REST API endpoints with user authentication
- Built single-page user interfaces through React Routers and consumed map and weather APIs for fetching data
- Implemented asynchronous network programs and interpreted memory and synchronization errors
- Built ML and deep learning models for image classification and NLP using TensorFlow, Scikit-learn, and NLTK
- Adopted test-driven development by writing unit, integration, and end-to-end tests with Jest and Puppeteer

Research Assistant

Apr – Aug 2018

Water Institute, Waterloo

- Implemented soil infiltration algorithms for a hydrology model used by Environment & Climate Change Canada
- Wrangled and analysed hydrologic time-series data by sequence matching for measuring model predictions
- Presented the model summary at the Canadian Geophysical Union conference to 30+ researchers and invited to the Ontario Climate Advisory Committee conference
- Utilized the CLI for running file systems, automated tests, and software version control in Windows

Consulting Intern

Sep – Dec 2019

Simpson Gumpertz & Heger, San Francisco

- Designed and presented flowcharts and decision trees by parsing engineering codes and specifications for clients, in close collaboration with the head of building science engineering
- Revised building enclosure design drawings through CAD, enhancing the system durability and energy efficiency

Student Entrepreneur

Sep – Dec 2018

Craft Collective – Hult Prize Finalist, Waterloo

- Engaged in UX design by ideating unemployment solutions, defining user personas, researching, and wireframing
- Iterated an e-commerce business model for connecting local handicraft cooperatives to global customers and selected as one of top 8 teams out of 30+ teams

PROJECTS

- Wrote an asynchronous web crawler with libcurl for searching and downloading PNG URLs from a server
- Developed a React application that maps the green city features and displays the real-time weather forecast
- Built a D&D manager with Ruby on Rails and PostgreSQL for creating customized book contents

EDUCATION

Bachelor of Applied Science, Civil Engineering (BAsC)

Sep 2015 – Oct 2020

University of Waterloo – Waterloo, Canada

- Podcast Co-host @ UW EWB's Ideas Without Borders (Topics: Big Data, Biases, etc.), Varsity Tennis Athlete

Engineering Exchange

Jan – Jun 2019

University of Leeds – Leeds, United Kingdom

- Facilitated cross-cultural learnings among international students through local charity events and trips

Relevant Courses: Databases & Software Design, Algorithms & Data Structures, Pattern Recognition, Artificial Intelligence, Systems Programming & Concurrency, Numerical Computation, Optimization, Project Management, etc.