

JANET WANG

✉ janet.wang.13@gmail.com 🌐 jwangwangj.github.io 📍 jwangwangj 🏠 janet-wang-010 ☎ (613) 890-0056

EDUCATION

UNIVERSITY OF TORONTO

Graduation: November 2020

Honours Bachelor of Science, Major in Computer Science and Major in Statistical Science

PROFESSIONAL EXPERIENCE

SOFTWARE ENGINEER – TutorOcean

August 2020 – Current

Web developer at TutorOcean working in React, Meteor and MongoDB

- Website development and maintenance
- Reducing autogenerated pages, optimizing db queries, and implementing a site-wide design overhaul
- Developing technical solutions to meet business requirements, documenting procedural guides

MOBILE DEVELOPER – TutorOcean

Summer 2019

Worked on the dev team at TutorOcean on their mobile app in React Native (<https://app.tutorocean.com/>)

- Built the mobile app UI based on a provided design using secure server calls.
- Implemented a secure payment system using Stripe mobile payment API.

RESEARCH ASSISTANT - uOttawa BMI Lab

Summer 2017

Publication · September 2019 · Li, L., Abou-Samra, E., Ning, Z. et al. An in vitro model maintaining taxon-specific functional activities of the gut microbiome. Nat Commun 10, 4146 (2019). <https://doi.org/10.1038/s41467-019-12087-8>

- Participated in design and implementation of research models for in vivo compositional gut microbiome profiles in drug response research, supervised by a PHD research fellow.

PROJECTS

MNIST – Investigation of Bayesian variational autoencoders (Kingma and Welling 2013) using the famous MNIST data set to predict bottom half of an image based on the top using the trained model with stochastic variational inference (Python, Julia, autograd, jax, NumPy, Matplotlib) (<https://github.com/jwangwangj/mnist-vae>)

Mass Springs System – Implementation of a mass-springs modelling system (Tiantian Liu et.al 2013) through sparse matrices, using C++ and libigl for more realistic animation style. (C++, libigl)

MEG – 4 months – Developed a minimum viable product for an online shopping portal My Ethical Garment with a React frontend using the AntD library, Flask/SQLAlchemy backend, Docker and AWS. (<https://github.com/SmitRao/meg>)

Signal control system – Implemented parts of a sample IoT software system Signal for controlling temperature and humidity using C, exploring handshakes and maintaining TCP socket communication with a central controller. (C, TCP/IP)

SKILLS

LANGUAGES – Python, Java, C/C++, C#/.NET, Bash, R, React, React Native, JS, HTML5, CSS, Julia, Verilog, Prolog

FULL STACK – Git, Android Java, Flask, Node.js, MongoDB, SQL/PostgreSQL, Docker, AWS, Heroku

LIBRARIES/API – autograd, jax, AntD, SQLAlchemy, ggplot, NumPy, Matplotlib, OpenGL

OTHER – MS Visual Studio/VSCode, Unix/Linux, Agile, Kanban, Figma, Photoshop, Premiere Pro, LaTeX

Tech – OOP, Design Patterns, Relational Databases, UML, Computer Graphics, Computational Linguistics

Data Science – Machine Learning, Data Analysis, Probability Theory