

JANET WANG

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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 application developer at TutorOcean working in React, Meteor and MongoDB

- Web application development and maintenance
- Improve search engine optimization (SEO) by optimizing autogenerated pages and DB queries
- Design and implement custom content management system for non-tech teams
- Work with customer service, marketing and sales team to meet business requirements, provide technical support, training and document user menus

MOBILE DEVELOPER – TutorOcean

Summer 2019

Worked on the iOS and Android apps in React Native (<https://app.tutorocean.com/>)

- Built the mobile app based on a provided design
- 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

AI/ML – Handwriting Analysis – Trained model to predict bottom half of an image based on the top, using Bayesian variational autoencoders with stochastic variational inference, using Python, Julia, autograd, jax, NumPy, Matplotlib (<https://github.com/jwangwangj/mnist-vae>)

Computer Graphics – Mass Springs System – Implementation of a mass-springs modelling system through sparse matrices, using C++ and libigl for more realistic animation style

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

IoT – Signal control system – Implemented a sample IoT software system for controlling greenhouse temperature and humidity in C, exploring handshakes and TCP socket communication with a central controller

SKILLS

LANGUAGES – Python, Java, C/C++, C#/F.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