JULIA L. WANG

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EDUCATION

University of Toronto | BASc in Engineering Science – Machine Learning Major • *Expected Graduation: 2023*

- Minor in Business | CGPA: 3.72 | 2018, 19,20 Dean's Honors List, 2020 Morris A. Cohen Scholarship recipient
- Relevant courses: Computer Algorithms & Data Structures, Databases, Statistics, Optimization, AI, ML, OS

SKILLS

- **Languages**: Python, SQL, Verilog FPGA, C, MATLAB, C++ (Arduino), ARM Assembly, R, Dart, JavaScript, NoSQL
- **Technical**: React.js, AutoCAD, Flutter, AWS, HTML, CSS, ModelSIM, TensorFlow, PyTorch, NumPy, Pandas, Flask, PostgreSQL, JDBC, IBM Watson, Microsoft Office, APIs, XML, prototyping, business analysis, mobile & web dev

WORK EXPERIENCE

Software Developer & Data Engineer | Dataraction • *September 2020 – June 2021*

- Regulated databases, ran raw SQL queries, and aggregated data using JDBC to develop an internal dashboard providing insights on user journey and growth; pitched forecasts and marketing strategy to investors.
- Launched a real-time analytics dashboard for streamers on the streaming service using IBM Cloud and AWS.
- Front-end developer for a Flutter app encouraging user feedback on videos from chosen criteria. Engineered numerous video, notification, and user models, a badge system to ensure reliability, and conducted unit testing.
- Implemented IBM Watson and organized beta testing to design a chatbot enhancing user experience.

Biomedical Researcher | UofT Institute of Biomaterials and Biomedical Eng | Dr. Leo Chou • *Summer 2019*

- Measured protein synthesis rate in response to 4 DNA treatments by agarose gel electrophoresis. Discovered that a polymerase chain reaction (PCR) treatment increased synthesis significantly compared PBS alternatives.

PROJECTS

DotsLogistics | *AI For Business Competition 2021 - RBC, Microsoft, & Technation* • **2nd Place/302 – $3000 Prize**

- Developed a business proposal and prototype using React.js, CSS, and Power BI for a 5-month competition.
- Spearheaded an AI logistics solution leveraging ML to streamline B2B and B2C relationships and transactions.

Optimizing Shoe Storage Systems | *BATA Shoe Museum's 2020 Shoe Storage Challenge*

- Incorporated iterative design relative to stakeholders, objectives, and client-given metrics to compile a design brief summarizing 10+ shoe storage solutions, converging to a Jenga-inspired drawer system.
- Constructed 3 laser cut wooden prototypes using AutoCAD to assess stability, usability, and accessibility.

Autonomous Robot | *Robotics for Space Exploration's 2019 SEEK Competition* • **2nd Place**

- Innovated to design a Arduino (C++) Bluetooth-controlled robot within 6 hours which could turn, stop, drive forwards or backwards, sense obstacles, and completed an obstacle course with an autonomous challenge.

Steadymate Temperature Monitor | *UofT CUBE's 2019 Biomedical Engineering 24h Hackathon*

- Designed and prototyped a functional body temperature monitor in the form of a bracelet for children suffering from CIPA using Arduino (C++) consisting of temperature sensors, sounds, and LEDs to alert a temperature spike.

EXTRA-CURRICULARS

Project Developer | UofT Machine Intelligence Student Team | ECG Analysis • *Sep 2021 – Present*

- Developing a deep convolutional neural network model for ECG analysis to diagnose cardiovascular disease.

Electrical Engineer | UofT Hyperloop Team • *June 2019 - June 2020*

- Designed and developed prototypes for a hyperloop pod by compiling research and discussing with 6+ team members to make decisions on battery management, development, safety, and cooling mechanisms.
- Modelled battery configurations using AutoCAD and researching 10+ cooling methods.

Elected First-Year Engineering Science Representative | UofT Engineering Society • *Sep 2018-May 2019*

- Engaged in discussion with faculty and teaching staff concerning specific issues and concerns of the Engineering Science class of 260+ to enhance the learning experiences of peers.
- Facilitated weekly events hosting 20+ students promoting positivity, diversity,&inclusivity within the community.