

JACKIE CHEN

Software Engineering Student

✉ liujia.chen@uwaterloo.ca

☎ 647-648-5006

🌐 jackiechen.me

in jackiechen73

🔗 jackiechen73

EXPERIENCE

Head of Engineering

CaseCom 🌐

📅 May 2020 - Present

📍 Toronto, Canada

- Oversaw engineering team to create a digital platform to assist with hosting case competitions in a virtual environment using **MongoDB**, **ExpressJS**, **ReactJS**, **NodeJS** stack and deployed using **AWS**
- Established partnerships with multiple student societies from across Canada and hosted events with over **200 participants**
- Implemented applicant submission portal and file submission using **NodeJS**, **MongoDB**, and **AWS S3** to uniquely index and store files
- Led database schema and API refactoring project in **MongoDB** and **NodeJS** to improve overall query times by **60%**

Back End Engineer

ThinkData Works 🌐

📅 September 2020 - Present

📍 Toronto, Canada

- Developed new endpoints using **RPC**, **Remote Procedural Call**, architecture in **GoLang** to optimize performance on both **PostgreSQL** and **RedisGraph** queries
- Configured internal query language using **Java** to handle different distributed query engines under data warehouses such as **PrestoDB** and **SnowflakeDB**
- Improved average application load time by **12%** using **database denormalization** on commonly used tables to reduce overall number of database queries

Full Stack Engineer

ThinkData Works 🌐

📅 January 2020 - May 2020

📍 Toronto, Canada

- Independently refactored **Ruby on Rails** application to integrate **React-Rails** and introduce component-based architecture with stateful components using **ReactJS** and **Typescript**
- Improved service polling for dataset imports with **Sidekiq** by **reducing total number of requests by 50%**
- Collaborated with back end engineers and UI/UX designers to **build design document** and created designs using **Zeplin** for upcoming features

SKILLS

Languages: Javascript, Ruby on Rails, Java, Python, GoLang, HTML, CSS, C, C++, C#
Technologies: ReactJS, Redux, AngularJS, Node.js, Redisgraph, MongoDB, PostgreSQL, Google Cloud Platform, Twerp, Git, Zeplin, Figma, Jenkins, Unity

PROJECTS

Pollutn't AI 🌐

HackTech 2020 📍 Pasadena, California

- Created a **Smart City AI** solution to monitor real-time air quality data and create predictive models to reduce the impact of pollutants in the air
- Developed custom IoT beacons with **DarkSkyWeather API** to publish live data using **Solace PubSub+**
- Built microservice back end using **Python** to parse data to upload to **Google Firebase**

Instago 🌐

Hack Western 6 📍 London, Ontario

- Created web application using **ReactJS** to help people plan trips by giving travel recommendations and sample itineraries
- Wrote custom web-scraping **API** using **Autocode** to find local attractions and rank them based on rating and proximity
- Added machine learning models for semantic analysis with **Word2vec** and **TensorFlowJS** to filter attractions by user preference

EDUCATION

Bachelor of Software Engineering
University of Waterloo

📅 September 2018 – June 2023