Dishu Lyu, Hon. B.Sc.

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Summary of Qualifications

- An experienced Software Engineer with expertise in Full-Stack development.
- Proficient in building scalable, reliable, and easy-to-maintain software using JavaScript / TypeScript / Python.
- Hands-on experience of frontend development using React; In-depth knowledge on React Hooks and develop reusable well-documented components.
- Hands-on experience of backend development; Design and develop scalable RESTful APIs; Integrate with NoSQL, SQL and SPARQL databases.
- In-depth knowledge on building CI/CD pipelines using GitHub Actions / Travis CI.
- Experienced in developing open-sourced package and publish to NPM registry.
- Passionate about new technologies.

Work Experiences

Software Engineer, Centre for Social Services Engineering, University of Toronto   May 2021 – Present

- Developed a Python object-relational mapping library that connects to a graph database (i.e. GraphDB, uses SPARQL query language). Classes & properties & instances stored in the graph database can be mapped into Python Objects/Classes. This made integrating a backend server that uses a graph database easier.
- Mapped data from relational database or CSV file to a knowledge graph that stored in a graph database.
- Developed a web application that virtualize the knowledge graph in the graph database.

Full Stack Engineer, School of Cities, University of Toronto   May 2020 – April 2021

- Developed a web application using React, Node and a NoSQL database.
- Wrote scalable stateless restful APIs and clusterized with PM2.
- Wrote shell scripts, DockerFile to containerize the web application and made automated deployment possible.
- Integrated regression tests and auto deployment to AWS with GitHub Actions.

Education

Honours Bachelor of Science, University of Toronto   September 2015 – April 2020

- **Computer Science Specialist and Statistics Minor**
  - Focused on Web and Internet Technology & Artificial Intelligence

- **Software Engineer Internship**, Ontario Ministry of Health and Long-Term care   September 2018 – August 2019
  - Researched and developed an in-browser spreadsheet application that similar to Google Sheets.
  - Designed and developed a formula parser and evaluator that comply with MS Excel formulas and runs in the browser's JavaScript environment. Published to NPM.

- **Research Assistant,** January 2020- April 2020
  - Developed a Social Needs Marketplace using React & Python with a SQL database.