

# CHENZHENG LI

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## EDUCATION

**Master of Science in Big Data**

Graduating 2026

**Bachelor of Applied Sciences, Specialization in Computing Science**

Graduated 2025

Simon Fraser University, Burnaby, BC

## TECHNICAL SKILLS

**Programming Languages:** JavaScript/TypeScript, Python, Java, C/C++, SQL, HTML, CSS, R, Linux Shell, Latex

**Framework&Libraries:** Node.js, Express, React, Redux, Android, Firebase, Material UI, Bootstrap, Pandas, Numpy, Scikit-learn, Plotly, Matplotlib, Request, Natural Language Toolkit, Statmodels, Seaborn, OpenAPI, Apache Hadoop, Apache Spark

**DB & Tools:** MySQL, MS SQL Server, MongoDB, PostgreSQL, Elasticsearch, GrayLog, AWS EC2, Tencent Cloud, Postman, DBeaver, Docker, Git, IntelliJ, Android Studio, Wave Forms, Wireshark, Ultimaker, Autodesk Fusion 360 IBM MQ, Cluster

**Knowledge:** Data Structure Algorithm, Web Mobile Development, OOP/OOD, Database, Data Communications and Networking, Operating System, Machine Learning, Computational Data Science, Human Computer Interaction Research, Hardware Implementation, Front-end and Back-end Software Development, Database System, Professional Responsibility and Technical Writing, Requirements Engineering, Big Data

## WORK EXPERIENCE

**Simon Fraser University's ixLab, Burnaby, BC, Canada: Research Assistant**

May 2024 – Sep 2024

- Participated in the "WooDowel" project to improve the positional positioning on the board by adding new vibration and acceleration sensing.

**Movmint Digital Fiat Works Corporation, Vancouver, BC, Canada: Data/Software Engineering**

Sep 2023 - April 2024

- Enhanced database retrieval speed by optimizing backend code and queries, cutting key API response time from 2 minutes to under 1 second; developed frontend pagination using JavaScript, TypeScript, and PostgreSQL.
- Resolved persistent query issues in production, established a Graylog database logging service for precise problem detection and resolution, employing Docker Compose, PostgreSQL, Elasticsearch, and MongoDB.
- Aided in developing an internal automated signing software, facilitating multithreaded stress testing, and addressing key validation challenges.

**Simon Fraser University's ixLab, Burnaby, BC, Canada: Research Assistant**

May 2023 – Aug 2023

- Engaged in "WooDowel" project, enhancing plywood sensors with electromagnetic shielding, improving sensitivity and accuracy for real-time human activity monitoring. Key contributor in multidisciplinary team efforts, integrating triboelectric sensors and pioneering smart material applications.
- Spearheaded 3D modeling and production of experimental components, leveraging Fusion360 and Ultimaker 3D printing. Demonstrated expertise in advanced manufacturing techniques and contributed to machine learning model tuning and user experience enhancements.

**Whaler Technologies Inc, Remote: Software Engineer Intern**

Jan 2023 – May 2023

- Engineered a robust merchant interface for a food ordering/pickup app, streamlining the onboarding process and empowering merchants with self-service capabilities for menu management.
- Authored a comprehensive technical design document, facilitating collaborative review sessions with the team to incorporate constructive feedback and refine project outcomes.
- Developed and deployed scalable merchant registration and menu management backend APIs using Node.js and Express, integrating DynamoDB for enhanced data storage and retrieval through AWS-SDK.

**Simon Fraser University's Robotics and Sensing Lab, Burnaby, BC, Canada: Research Assistant**

Nov 2022 – Jan 2023

- Transformed objects in images to 3D models with Point Cloud technology and Python.
- Trained and deployed models in sensors of the robot for recognition with Open3D and Intel's IR sensing cameras.
- Evaluated the performance of the robot in real-world scenarios and improved the application of point cloud.

## ACADEMIC PROJECTS

**Reminder App for Dementia Patients and Caretakers**

Jun 2022 – Sep 2022

Mobile Development

- Developed an Android app for caretakers to remind dementia patients perform daily tasks.
- Implemented task reminder frontend with Java, Android, and Material UI, and backend with Spring Boot, and MySQL.
- Designed DB schema and deployed the database and the backend server on AWS EC2.

## PUBLICATIONS

**WooDowel: Electrode Isolation for Electromagnetic Shielding in Triboelectric Plywood Sensors**

Proceedings of the 42nd annual ACM conference on human factors in computing systems. (CHI'24)

Yonghao Shi, **Chenzheng Li**, Yuning Su, Xing-Dong Yang, Te-Yen Wu.