

# Rick Liu

(226) 505-9508   ricksliu.mail@gmail.com   linkedin.com/in/rick-s-liu   github.com/ricksliu   ricksliu.github.io

## Skills

### Languages

JavaScript/TypeScript • Python • C/C++ • C# • Java • PHP • HTML/CSS • SQL

### Technologies

React/React Native • Angular • Express • ASP.NET • Docker • AWS • Git • Jenkins

## Experience

### Nuvation Energy

Waterloo, Canada

Staff Software Developer Intern

Aug 2024 – Dec 2024

- Developed web app in React and TypeScript to run validation and comparison tools on configuration files

### Ansys

Waterloo, Canada

Software Developer Intern

Jan 2024 – Apr 2024

- Co-developed unit testing framework in Node.js to verify deployment and properties of Azure resources
- Built telemetry library with tools and middleware to connect Express apps to Azure Application Insights

### Capital One

Toronto, Canada

Associate Software Developer Intern

May 2023 – Aug 2023

- Investigated cross-platform frameworks as alternative to native mobile development and pitched findings
- Ported credit card pre-approval web app to iOS and Android using React Native as proof-of-concept

### Dealer-FX

Markham, Canada

Software Developer Intern

Sep 2022 – Dec 2022

- Improved AngularJS and ASP.NET vehicle check-in web app to fetch telematic data from GM vehicles
- Refactored Angular appointment scheduler and improved unit test coverage to reduce tech debt

### Idea Notion

Markham, Canada

Software Developer Intern

Jan 2022 – Apr 2022

- Rewrote WordPress, Laravel and MySQL e-commerce store, obsoleting three third-party plugins
- Migrated 70k images to WEBP and applied optimization techniques, reducing initial data transfer by 15%

### Financial Services Regulatory Authority of Ontario

Toronto, Canada

IT Systems Analyst Intern

Apr 2021 – Sep 2021

- Upgraded React, ASP.NET and MSSQL file submission portal to support hosting interactive web forms
- Extended in-house form language with new features to facilitate its adoption by three internal teams

## Projects

### TachyonDB – Lightweight Serverless Time Series Database

Spring 2024

- Worked on team of five to develop SQLite-like time series database in Rust as fourth-year design project

### AI Art Detector ([GitHub](#))

Fall 2023

- Trained CNN on 50k images using PyTorch to classify real and AI art with 88% precision and 94% recall
- Built Angular, Django and PostgreSQL web app and deployed it using AWS, Docker, Nginx and Jenkins

## Education

### University of Waterloo

Waterloo, Canada

Bachelor of Software Engineering (Expected) – 3.95 GPA

Sep 2020 – Apr 2025