

David Rivera

Software Developer

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Education

Seneca Polytechnic

May 2023 - Dec 2025

Ontario College Advanced Diploma - Computer Programming & Analysis

Relevant courses: Advanced Database Services, Data Structures and Algorithms, Web Programming for Apps & Services, Software Analysis and Design, Application Development

Work Experience

Customer Service Representative, Loblaws, Toronto, On

- Delivered exceptional **customer service** to over **100 customers daily**, resolving **inquiries** and ensuring a **positive shopping experience**
- Achieved 95% customer satisfaction** by effectively **addressing concerns**, processing returns, and **managing** transactions
- Assisted in resolving product issues and provided personalized recommendations to enhance customer engagement

Projects

Inventory Management Mobile Application ([Collaboration with Dr. Adarsh Sehgal](#))

- Developed full-stack mobile app using **React Native** and **TypeScript**, streamlining inventory tracking for small businesses
- Designed and implemented a **RESTful API** using **ExpressJS**, handling 500+ concurrent requests with sub-100ms response times
- Utilized **Agile** methodologies with **Jira** for project management, reducing development time by **20%** compared to previous projects
- Gained hands-on experience in complete **software development lifecycle**, from concept to pre-release stages

Programming Language/Compiler

github.com/RiverDave/InterfuseLang

- Developed a custom programming language with C-inspired syntax and modern features, reducing boilerplate code by **~30%** compared to **C**
- Implemented compiler pipeline using **C++** and **LLVM**, showcasing advanced knowledge of compiler theory and systems programming
- Designed innovative language features including type inference and intuitive syntax for loops and function declarations
- Optimized **LLVM** integration to improve compilation speed by 20% compared to similar languages.

AI-Powered Ad Generation API

github.com/RiverDave/ADVision-API

- Engineered high-performance **REST API** in **Go** that converts images into detailed marketing suggestions using OpenAI's image recognition
- Optimized image processing pipeline to handle multiple concurrent API requests, reducing average response time per image to under 5 seconds, and implemented **continuous delivery** to ensure seamless deployment of new features.
- Designed comprehensive **API** with auto-generated **Swagger** documentation, providing multi-faceted marketing insights including SEO keywords and audience targeting

Containerized Web-Based Editor

github.com/RiverDave/Interfuse-website

- Built **full-stack** web application for real-time writing, compiling, and running a custom programming language code
- Utilized **React**, **Node.js**, and **Next.js** with server-side rendering for optimal performance
- Implemented **Docker** containerization and deployed on **Google Cloud** Platform, ensuring scalability and consistent environments

Technical Skills

Languages: C/C++, Go, JavaScript, TypeScript, HTML, CSS, Python, Lua, Perl, Bash

Frameworks/Libraries: React, React Native, NextJS, Node.js, Expo

Databases: Oracle SQL, MySQL, MongoDB, PostgreSQL, Firebase

Software: Git, Visual Paradigm, Google Cloud, AWS, Linux/Unix, MSProject, Jira, Vim, Postman, BitBucket