

# PETER JIANG

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## EDUCATION

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### University of Waterloo

Waterloo, ON

Junior, Candidate for Bachelor of Computer Science

2020-2025

- Sophomore term GPA: 4.0
- Received Presidents Scholarship for outstanding academic performance
- Relevant Coursework: Advanced Algorithm Design, OO-Development(C++), Compiler Designs

## WORK EXPERIENCES

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### Sony Interactive Entertainment - Haven Studios

Tools Developer Intern

Jan - August, 2023

- Optimized an internal code quality analysis tool by migrating from **Go** to **Rust**, resulting in a **83%** increase in speed by utilizing multi-threaded techniques
- Integrating said tool with Jira, Perforce, and the studio wide CI to enforce coding style and minimize tech debts. Discovered more than **50** issues since deployment
- Developing plugins in **C++** for Unreal Engine 5 to streamline workflow for programmers and artists
- Designed and implemented an analytic dashboard, providing insightful visualization of code quality and MTBF data on **GCP**. Reduces time-to-access by **80%**

### Ford Canada

Software Developer Intern

May - August, 2022

- Added support for SVG filter effects to a custom renderer for the SYNC-4 infotainment system
- Enhanced the capability of the renderer by integrating Skia in **C++**
- Optimized the SVG rendering pipeline by reducing heap allocations, gained a speed improvement of **13%**

### CARFAX Canada

Android Developer Intern

May - August, 2021

- Developed an accurate (**95%**) driving mode detection service
- Created composable and responsive UI components using Android Studio and Java
- Optimized the background service CPU usage, leading to a **30%** decrease in battery drain among testers.

## PROJECTS

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### Lodestone ([Read Full](#))

Co-Founder

Game Server Hosting & Orchestrator

December 2021 - Present

- **Co-Founder** and lead developer of an open-source game server hosting tool with **500+** **GitHub** stars, **6000+** downloads and **500+** monthly active users
- Managed cross-functional teams of 12 to ensure successful project delivery
- Built a multi-threaded, fault-tolerant backend server with **Rust** and **SQLite**. Implemented **REST** and **WebSocket APIs** with JWT authentication and user permissions
- Created a **Typescript** plugin system powered by a custom-built multi-threaded Deno runtime
- Developed a web dashboard using **React**, **Next.js**, and **Rust**
- Utilized CI/CD pipeline on GitHub action to architect a continuous delivery system

### FLOCK

Hack the North 2021

A.I. Powered Campus Geese Tracker

September 2021

- Developed a mobile app with Flutter and Express.js to spot and track geese with Google Map
- Utilizes Tensorflow on Google Cloud Platform to process user-uploaded geese images
- Custom object recognition mode built from scratch with 85% accuracy

## SKILLS

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- **Programming Languages:** Rust, C++, Python, TypeScript, Kotlin, Java, Go, JavaScript, C,
- **Tools & Frameworks:** React, Node, Svelte, Flutter, Linux, Google Cloud Service, AWS, Git