

# Paolo Torres

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## EXPERIENCE

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### Amazon

Aug. 2021 – Present

*Software Development Engineer*

*Vancouver, BC*

- Implemented backend system and wrote all APIs for a revamped Help Center, **20,000+ daily users**
- Integrated with internal tools for searchability of content, **reduced customer support time by 25%**
- Utilized Java, Spring Framework, and AWS in the backend, TypeScript and React in the frontend

### Amazon

May 2020 – Aug. 2020

*Software Development Engineer Intern*

*Vancouver, BC*

- Developed software tools for Amazon Freight to track and monitor the statuses of shipper invoices
- Incorporated sorting, pagination, and filtering of data, deployed to production for **10,000+ users**
- Implemented Spring caching to **improve page load times** from 5s to <1s for all subsequent loads

### Clearpath Robotics

Sep. 2019 – Dec. 2019

*Software Developer Intern*

*Waterloo, ON*

- Implemented firmware with DMX512 and sACN compatibility for control of embedded lighting system
- Interfaced with an STM32F407, created device drivers to support UDP transport and SPI conversion
- Developed and tested features for **autonomous ground vehicles** in C++, utilized ROS and CMake

### Microsoft

Jan. 2019 – Apr. 2019

*Software Engineering Intern*

*Redmond, WA*

- Developed **C++20** library conformance features based on the C++ STL that ships with Visual Studio
- Libraries: algorithm, numeric, cmath, containers, type\_traits, string, functional, memory, and new
- Optimized function's move constructor to **reduce object file size** by 30% for x86 and 45% for x64

### Microsoft

May 2018 – Aug. 2018

*Explore Intern*

*Redmond, WA*

- Developed Visual Studio **IDE** and **IntelliSense** features in C++ and C#, shipped to **5 million users**
- Added **telemetry analytics** and full test coverage to track success metrics and increase robustness
- Utilized Git and Azure DevOps to track work, participated in sprint meetings, carried out sprint demos

### FLIR Systems

Sep. 2017 – Dec. 2017

*Robotics Engineering Intern*

*Waterloo, ON*

- Generated fixes on sensors and MCUs to improve temperature reading and flight performance in C
- **Squashed 50+ bugs** in Jira and verified feature requests related to controls, computer vision, and UI
- Tested and validated memory management issues, firmware, connectivity, calibration, and custom APIs

### Solink

Jan. 2017 – Apr. 2017

*Software Developer/QA Intern*

*Ottawa, ON*

- Built a central data source connector in JavaScript to manage 5,000+ POS device transactions a day
- Wrote camera-based and data extraction automation scripts via REST, **saving hours of work** a week
- Created software tools, patched numerous bugs, and tested the product via Scrum/Agile methodology

## EDUCATION

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### University of Waterloo

Waterloo, ON

*Bachelor of Applied Science, Mechatronics Engineering*

*Sep. 2016 – Jun. 2021*

## PROJECTS

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### Parameter Optimizer/Symbolic Regressor | C++

Apr. 2021

- Implemented a genetic algorithm for optimization and genetic programming for regression problems

### Pathfinding Maze Solver | C++

Dec. 2020

- Utilized A\* search algorithm with distance heuristic to visualize and optimally solve complex mazes

## SKILLS

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**Languages/Tech:** Java, TypeScript, HTML/CSS, C++, C, C#, Python, JSON, npm, Node.js

**Libraries/Frameworks:** Spring, React, Redux, Elasticsearch, Cypress, Angular, C++ STL, .NET

**Tools:** Git, AWS (DynamoDB, S3, SQS, Lambda, CloudWatch), Terminal, IntelliJ/Visual Studio