Paolo Torres

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EXPERIENCE

Amazon   Aug. 2021 – Present
Software Development Engineer   *Vancouver, BC*
- Built backend system and wrote all APIs for a revamped Help Center, **15,000+ daily active users**
- Integrated with internal tools for searchability of content, **reduced customer support time by 25%**
- Worked with 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 **thousands of users**
- Implemented Spring caching to **improve page load times** from 30s 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

PROJECTS

Parameter Optimizer/Symbolic Regressor | *C++*   Apr. 2021
- Implemented a **genetic algorithm** for optimization and genetic programming for regression problems
- Incorporated crossover/mutation operators to evolve across generations and achieve optimal solutions

Pathfinding Maze Solver | *C++*   Dec. 2020
- Utilized **A* search algorithm** with distance heuristic to visualize and optimally solve complex mazes
- Outperformed generic search algorithms by processing significantly less nodes resulting in shorter paths

EDUCATION

University of Waterloo   Waterloo, ON
Bachelor of Applied Science, Mechatronics Engineering   *Sep. 2016 – Jun. 2021*

SKILLS

Languages/Tech: Java, TypeScript, HTML/CSS, npm, Node.js, C++, C, C#, .NET, Python
Libraries/Frameworks: Spring Framework, React, Redux, Angular, JSON, jQuery, C++ STL
Tools: Git, AWS (DynamoDB, S3, SQS, Lambda, CloudWatch), IntelliJ/Visual Studio, Terminal