Shane Hickman

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2A Software Engineering
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Skills

- Languages: Java, Spring, JPA, C, C++, C#, MySQL, PHP, JavaScript, AngularJS, HTML, CSS
- Technologies: Git, AWS, Gradle, JUnit, NUnit, Mockito, Docker, Ansible, Jasmine, IntelliJ, Datadog, Loggly, JIRA, REST, Ajax, MVC, Unity3D, Swing, JavaFX, JQuery, Terraform

Experience

Software Developer Kitchener, ON May – Aug 2017
Miovision Technologies Incorporated

- Independently wrote a performant and self-contained API to export large amounts of data from Hibernate + JPA (through pagination and streaming) to AWS.
- Refactored the data extraction workflow to parallelize tasks, increase accuracy, and pave the way for future cost savings initiatives.
- Introduced Datadog agents to satellite servers to monitor download speeds and cache performance.
- Wrote and maintained POJOs to facilitate json data transfer to and from computer vision software.
- Worked closely with computer vision team to determine specifications and integration details of new software and the data export API.

Projects

2D procedural side-scroller using Unity Game Engine (C#, NUnit, Git) 2017

- Wrote a dynamic and scalable node based pathfinding algorithm capable of supporting hundreds of navigation agents concurrently.
- Created performant data structures as a powerful base for bounded random generation.

Text based process manager for boosting productivity (Java(FX), Gradle, Git) 2017

- Wrote custom yaml user configuration parsers and providers for easily defining custom commands.
- Modified and embedded open source JetBrains terminal emulator JediTerm into the core application.
- Created a command framework for executing various local processes through a terminal “like” prompt.

Library for parallel computing across multiple connected Arduino boards (C, SVN) 2016

- Created a data structure for storing functions to implement lambda and anonymous functions in C.
- Wrote algorithm to parse and execute functions from strings passed through serial communication.

www.photesto.space created as a database for sharing and posting study resources
(PHP, Java, HTML, CSS, JavaScript and jQuery, MySQL, Ajax) 2015 and 2016

- Created login system with encryption and email verification to protect user data
- Implemented self-made lossy image compression algorithms in both php and java
- Styled website responsively for optimal performance on both desktop and mobile devices

Awards and Accomplishments

Schulich Leader Nominee National 2016
One of 1500 grade 12 students chosen from across Canada to compete for 50 Schulich Leader Scholarships

Waterloo Math Contest; CSMC School Champion; Euclid Math Contest 2014, 2015 and 2016
Consistently achieved highest marks for all math contests written at E.L.Crossley Secondary

Regional ECOO Programming Competition Niagara April 2014, 2015 and 2016
Consistent team participant, placed in top 3 every year

Education

Candidate for Software Engineering (BSE) Degree Waterloo, ON start date: September 2016
University of Waterloo class of 2021 GPA of **4.0**