

Patrick Cockwell

4B Software Engineering | 20349613

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I am a University of Waterloo software engineering student interested in large data set analysis and visualization with experience in backend web design. I am looking to learn more on these topics and improve my design and development skills. I am familiar with, and excited about the startup/small company scene and hope to one day make my mark.

SKILLS AND QUALIFICATIONS

Languages

- **PHP**: Over 4 years of experience obtained working on projects including Orion, AuToDo, RoomClerk, and various analytics dashboards
- **SQL**: Over 4 years of experience gained working on a wide range of tools and tasks
- **Python**: Over 2 years of usage and experimentation for scripts and applications within the workplace and on personal tasks
- **Lua**: Approximately 12 months of usage and experience while working on Heroes of Newerth Artificial Intelligence Bots
- **Java & C/C++**: Approximately 12 months of experience gained while working on school related projects and assignments
- Very experienced with **HTML**, **CSS**, **Javascript**

Tools and Software

- Well versed with the **Vertica** Analytics Platform as a result of analytics work in prior internships
- Expert with **MySQL** and strong familiarity with **PostgreSQL** through work with multiple different forms of applications
- Comfortable with **Unix** command line
- Experienced with multiple version-control systems including **Git** and **SVN**
- Frameworks/Toolkits: **CodeIgniter**, **Laravel**, **Kata (PHP)**, **jQuery**, **Twitter Bootstrap**, **Pylons**
- Editing Tools: **vim**, **Textmate**, **Sublime**, **Notepad++**, **PHPStorm**
- Operating Systems: **Linux**, **Mac**, **Windows**

Other Skills

- Have resided in **Velocity**, an exclusive residence incubator focused on **entrepreneurship** and **technology** for 4 terms
 - Comfortable working in team environments and very experienced working on small teams
 - Passionate about computer programming, gaming, web development, and large data visualization and management
 - Currently interested in the field of machine learning
 - **Fully bilingual**, and fluent in English and French
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RELEVANT PROJECTS

AuToDo

You Have Time

September 2012 - Present

- Building a web API that uses scheduling algorithms, dependency graph reduction, and location analysis to systematically build a daily schedule for users
- Developing the API with Laravel
- Once complete, the system will allow for simple and seamless integrating with Google Calendar to provide a daily schedule that reminds and prompts users to complete the tasks listed

Heroes of Newerth AI Bots

Artificial Intelligence Bots

February 2013 - Present

- Developed the Soul Reaper AI bot that was approved, and included in the retail game
- Member of the AI Bot Team, a group of community members that discuss, review, and approve other community bots before they are sent to S2 Games for final approval and inclusion in the game
- Developed multiple algorithms that have been integrated as general behaviors for all bots

Orion Analytics Project

Real Time Data Graphing

October 2011 - September 2012

- Determined specifications, designed, and helped to build a real time graphing tool for my workplace
 - Built version 1 of a real-time data visualization tool using PHP, jQuery, AJAX, and interactions with Graphite, a real time time-series data aggregator
 - Revamped the project using CodeIgniter and Bootstrap along with the help of coworkers, and eventually open-sourced (see below for link) the project during a returning internship
 - Currently working to keep the system up to date, and provide feature upgrades
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WORK EXPERIENCE

S2 Games Inc.

Web Development Intern

July 2013 - Present

- Designed and built the functionality for the website to accompany S2 Games' newly released title, Strife
- Built a forum system from the ground up alongside a small team
- Various web development tasks while working remote
- Built an Artificial Intelligence bot that was added to Heroes of Newerth, S2 Games' other major title

Datadog Inc.

Big Data Hacker

January 2013 - April 2013

- Worked on a multi-faceted analytics platform designed for systems and development operations teams
- Developed using the Pylons web framework with multiple systems supporting data processing such as PostgreSQL, Redis, Cassandra
- Basic Ruby scripting for Rake tasks and testing

GREE International Inc./Funzio Inc.**Analytics Engineering Intern****May 2012 - August 2012**

- Developed multiple analytical display dashboards from the ground up for the Analytics Engineering Team
- Helped design analytics databases for games in development
- Revamped and worked towards open-sourcing the Orion Analytics Project (mentioned above)

Funzio Inc.**Analytics Engineering Intern****September 2011 - December 2011**

- Designed a crucial data dashboard for executives that helped monitor daily activities
 - Helped manage the flow of data through the analytics platform to ensure a stable system
 - Accomplished many tasks spanning from Python script work to iOS development
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EDUCATION**University Of Waterloo****4B Software Engineering****September 2009 - Present**

- On track to graduate in April 2014 with a Bachelor of Software Engineering (BSE)
 - Have a total of 2 years of workplace experience through the University of Waterloo Co-op Program
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ADDITIONAL INFORMATIONGithub: <https://github.com/pcockwell/>Orion Analytics: <https://github.com/gree/Orion>Strife Website: <http://www.strife.com>Heroes of Newerth AI Bots: <https://github.com/s2games/Heroes-of-Newerth-Bots>