



PAUL WANG

YEAR 3, COMPUTER SCIENCE MAJOR

paul.wang.ac@gmail.com

<https://pwang347.github.io>

<https://github.com/pwang347>

University of British Columbia | Cumulative GPA: 93.1%

Chancellor's Scholar

Science Scholar and Dean's Honour List placements

(2015W, 2016W, 2017W)

Trek Excellence Scholarship (2015W, 2016W)

TECHNICAL SKILLS

Languages: Python, C#, Java, Golang, C++, Bash, SQL, TypeScript, JavaScript, Ruby, Groovy

Frameworks: Django, Ember.js, Electron, Rails, Hubot, React.js, Android SDK, Unity, Jekyll

CI and other: Docker, Jenkins, Chef, VSTS, Capistrano, Git, SuSe Linux, Ubuntu Linux, Vim, Heroku

WORK EXPERIENCE

Software Engineer Co-op — Microsoft Vancouver

May 2018– Sep. 2018

- Spearheaded development of a new UWP app with five other interns in the Garage program
- Took ownership for VSTS build and deployment pipelines for sideloading and internal testing
- Developed core application architecture including reusable components for authentication, storage, grouping as well as implemented an accessible and compliant user interface

Software Development Co-op — A Thinking Ape Entertainment

Sep. 2017– Dec. 2017

- Designed and deployed an internal client interface for Google Adwords management
- Implemented campaign auto-bidding using heuristic predictions based on campaign data
- Improved robustness of training pipeline through state tracking and adding timeouts and alerts for multiprocessing as well as implemented item recommendations into the game clients
- Designed and deployed a generic tracking interface for user attribution tracking and reporting which reduced roughly \$1000 in monthly costs towards a third-party dependency
- Developed a full fingerprinting service as a fallback attribution mechanism for certain devices
- Implemented new data views in Ember.js app and corresponding Django API endpoints

Intern, Jam Extensions and Platform — SAP Labs Canada

Jan. 2017– Aug. 2017

- Developed new CLI tool for concurrent deployment operations using Golang with Cobra and Viper frameworks to replace legacy shell scripts with testable codebase
- Containerized document converter micro-service using Docker and created Jenkins pipeline for image building and architected Capistrano deployment mechanism and internal syslog logging
- Created new Jenkins cluster in staging DC, and set up web-hook controlled jobs to fully automate staging deployments and packaging GitHub release assets
- Automated provisioning and deployment validation in Jenkins, as well as established pull-request linting and chef-runner job to maximize testing coverage for chef cookbook repository
- Maintained and validated server configurations through Chef recipes and various special deployment instructions; implemented several diagnostics and maintenance tasks in Capistrano
- Reduced complete deployment time from thirty to ten minutes by uploading pre-compiled assets; further reduced subsequent times by implementing logic to skip same-revision releases
- Implemented cron-managed chat alerts using GitHub API calls for internal Hubot

Computer Science Teaching Assistant — **University of British Columbia** May 2016 – Jul. 2016

- Administered a weekly three hour lab with 21 students for the *Computation, Programs, and Programming* course; explained concepts such as binary search trees and generative recursion
- Held office hours and evaluated problem sets, exams; met with instructor weekly for sync-up

SELECTED PERSONAL PROJECTS

DockerCtl — **Electron, Ember.js** (<https://github.com/pwang347/dockerctl>) Sep. 2017
Graphical interface designed for local Docker orchestration and development. A simple Material design app that supports basic property listing and run, stop operations.

Zen Bot — **Hubot, Coffeescript** (<https://github.com/pwang347/zen-bot>) Mar. 2017
Facebook Messenger bot hosted on Heroku. Integrated open-source APIs to implement embedded YouTube videos, local weather forecasting, dictionary definitions and evaluation of mathematical expressions.

ProBot — **C++** (<https://github.com/pwang347/probot-ai>) Aug. 2016
Competitive AI for *StarCraft: Broodwar* that implements minimax with alpha-beta pruning for build order optimization. Employed modular design for different services, reduced code coupling using interfaces and designed recursive functions for tree traversal with unit tests.

Chatter — **Node.js, Socket.IO** (<https://github.com/pwang347/chatter>) Jun. 2016
Simple real-time, data-persisting chatroom service using Socket.IO and MongoDB that supports text-to-speech functionality.

Clipboard++ — **Java FX** (<https://github.com/pwang347/clipboard-pp>) Aug. 2015
Clipboard utility tool that allows storage, editing and cycling of multiple clipboard objects. Implemented editors to support and provide data-modifying macros for text, image, hyperlinks and file list data flavors for transferable objects detected by the clipboard listener.

My BGM — **Android Java** (<http://bit.do/mybgm>) Sep. 2014
An ad-free music player app published in the Google Play Store. Implemented features such as file type filtering, filename sorting, image caching and preference storage using default Java and Android libraries; designed assets using Photoshop.

SELECTED TECHNICAL EXTRACURRICULAR ACTIVITIES

NwHacks 2017 — **Node.js, Express.js** (<http://bit.do/ubc-course-ranker>) Feb. 2017
Wrote Casper.js scraper scripts, attempted captcha breaking with Tesseract.js, automated csv to MySQL database injection with scripts, and wrote queries to serve JSON in Express.js

Global Game Jam 2017 — **Unity C#** (<https://ubc-ggj2017.github.io>) Jan. 2017
Designed 2D side-scrolling puzzle game with parallel worlds, items, and inverted gravity

UBC Hack Day 2016 — **Python** (https://github.com/LocalHackDayUBC/local_hack) Dec. 2016
Wrote Python web-scraper script using BeautifulSoup and performed lexical analysis to determine logical grouping and quantifiers used for course requirements