KEVIN CHEN

SKILLS SUMMARY

4B Waterloo Computer Science 647-637-4498 • k66chen@uwaterloo.ca Site: k66chen.com • GitHub: k66chen

Languages

Python, Ruby, Perl, C, C++, Java, JavaScript (Angular, React, Backbone, Ember), PHP, HTML, CSS, XML, JSON, SQL

Tools

RESTful Services, jQuery, Rails, Elasticsearch, AJAX, SASS, version control management (Git, Mercurial, SVN), bug tracking software (Bugzilla, JIRA), Bioinformatics suites (BioPerl, BioPython, Galaxy)

WORK EXPERIENCE

Freshbooks 2018

Software Engineer

- Developed multiple new components, models and routes for frontend ember.js application
- Designed new endpoints in backend services written in Ruby on Rails and Python, fetching from MYSQL databases
- Implemented new trial user workflow to improve trial-to-paid conversion, later mainlined to all new users
- Participated in agile methodologies including sprints, retrospectives, test-driven development and code reviews
- Wrote unit and integration tests for both frontend and backend services as well as automation tests with Selenium

AlertDriving 2017

Software Engineer

- Created new single page web application components using MVC JavaScript frameworks AngularJS and Backbone.js
- Wrote server-side backend microservices for PHP-based Zend Framework, working with client databases (MySQL)
- Improved existing product by resolving over 50 bugs including refactors, efficiency improvements and compatibility fixes
- Set up and debugged multiple reusable development environments using Linux & Windows virtual machines

Ontario Institute for Cancer Research

2015

Bioinformatics Specialist

- Organized and prepared for International Cancer Genome Consortium data releases, including over 80 cancer projects
- Wrote Python script suite to improve data quality and correctness, correcting over 25% of raw data
- Generated numerous detailed heat maps and graphs with R to visually track individual project completeness
- Designed and executed data management tasks, ensuring multiple error-free data releases

Agriculture and Agri-Food Canada

2014

Bioinformatics Software Developer

Fall 2014

- Developed for open source web-based scientific workflow platform "Galaxy"
- Wrapped command line Bioinformatics software packages into Galaxy, including over 100 "MOTHUR" commands
- Implemented necessary Galaxy functions and enhancements in Python and XML
- Configured Linux virtual machines, using Vagrant to quickly create isolated testing environments

Winter 2014

- Rebuilt a DNA Nucleotide processing pipeline from multiple BASH scripts into a standalone Perl program
- Implemented multi-threaded processes into the pipeline, improving runtime by over 50%
- Developed various tools and scripts to process biological research data in Perl and BASH

HSM International 2013

Web Developer

- Designed website logos, images and banners
- Independently created new pages meeting client specifications, while ensuring consistency throughout site

PROJECTS

Skyfish (In Development)

- Isometric tile-based SRPG using HTML5/JavaScript open source game framework Phaser
- Implemented enemy AI, pathfinding algorithms and object-oriented unit interactions