Phone: 226-606-1886
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GitHub: github.com/robin-pan
Website: robin-pan.com

Robin Pan SOFTWARE DEVELOPER

SKILLS

Proficient

C, C++, Python, Bash, HTML, CSS, JavaScript, PHP, AngularJS, JSON, REST, Scheme, SQL, MIPS Assembly

Familiar

Java, C#, JQuery, Laravel, Node.js, SQL, SDL, WebdriverIO, Mocha, Chai

Tools

Git, Linux, Windows, Vim, Sublime, Visual Studio, Eclipse, Oxygine, LaTex, Docker, Nginx

Other

Agile development, object-oriented programming, data structures and algorithms, compiler design, database design, discrete mathematics, quality assurance, technical writing

EDUCATION

University of Waterloo
Candidate for BCS
2015 - 2020 (Ongoing)

ACHIEVEMENTS

Dean's Honours List, uWaterloo
Term Average 87%+
Winter 2016

Presidents Scholarship, uWaterloo
Entrance Average 90%+
Fall 2015

Bronze Medallion, National Lifeguard Society
Awarded upon completion of second step towards lifeguarding certification
Fall 2013

ARCT Diploma in Performance, RCM
Pinnacle of achievement within the Music Development Program
Summer 2013

4th Place, Canadian Music Competition
National Finals
Summer 2012

Patricia McLean Scholarship, RCM
Highest grade 8 mark across Canada
Summer 2008

WORK EXPERIENCE

Mercury Mortgages | Mississauga, ON, Canada | Sept 2017 – Dec 2017
Full-Stack Developer

- Designed and developed features of web-based mortgage lending platform using AngularJS, Bootstrap, JQuery, Laravel PHP and PostgreSQL
- Implemented user roles feature to control website access based on user permissions
    - Wrote a customized directive to control user view based on user permissions
    - Wrote back-end policies to block unauthorized requests
- Implemented various security features
    - Limited failed password attempts from IP and email combination
    - Added password strength enforcement
    - Fixed various bugs and vulnerabilities
- Maintained and improved PDF generation feature
    - Improved PDF generation time by ~30%
- Decreased loading time of main page from 8+ seconds to 2 seconds
- Other tasks included code reviews, scrum meetings, creating documentation pages, various smaller-scale features, bug-fixing, and helping fellow co-workers debug and solve problems

Ciena Corporation | Ottawa, ON, Canada | Jan 2017 – Apr 2017
Photonics Software Designer

- Developed tool for analysis of network card logs using Python
    - Designed generic tool for log analysis based on requirements gathered from multiple teams
    - Examined sections of card firmware source code to determine error conditions
    - Created unit-test suites
    - Wrote technical document outlining the requirements and usage of the tool
- Performed maintenance tasks on network cards

Climax Media | Toronto, ON, Canada | May 2016 – Aug 2016
QA Analyst

- Developed and executed test suites for websites following the agile development process
- Performed manual front-end testing on websites
- Wrote test scripts using WebdriverIO with Mocha and Chai for front-end of websites
- Worked with DB2 database as well as Honda API for manual website back-end testing
- Wrote basic JavaScript scripts for website back-end testing

PROJECTS

Snek
C, C++, SDL, Oxygine, Emscripten

- Parody of the real-time arcade game ‘Snake’
- Initially implemented with C and SDL, switched to C++ and Oxygine
- Employed object-oriented design patterns (subject-observer and singleton)
- Embedded on website after transpiling C++ to Javascript using Emscripten
- Gained insight on how real-time games work

Personal Website
HTML, CSS, Javascript, JQuery

- Responsive website with tablet and mobile support
- Minimalistic, single-page design featuring JQuery animations

Calculator
C#

- Basic arithmetic calculator implemented with object-oriented paradigm
- Uses Shunting-Yard algorithm to convert expression to postfix format, then evaluates the expression
- Operations are set up polymorphically, allowing for the easy addition of new mathematical operators.