Phone: 226-606-1886

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GitHub: robin-pan

Website: robin-pan.com

SKILLS

Proficient

C, C++, Python, Bash, HTML, CSS, JavaScript, JQuery, AngularJS, PHP, Ruby on Rails, JSON, REST, SQL

Familiar

Java, C#, CoffeeScript, Bootstrap, Angular2, Scheme, Hadoop, Spark, MIPS Assembly, SDL, WebdriverIO, Mocha, Chai

Tools

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

Other

Data structures and algorithms, object-oriented programming, dynamic programming, multi-threaded programming, socket programming, agile development, compiler design, operating system design, relational database design, computer architecture, quality assurance

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 Med, National Lifeguard Society
Lifeguarding certification
Fall 2013

ARCT Diploma in Performance, RCM
Summer 2013

4th Place, Canadian Music Competition
National Finals
Summer 2012

Patricia McLean Scholarship, RCM
Highest exam mark across Canada
Summer 2008

Robin Pan SOFTWARE DEVELOPER

WORK EXPERIENCE

MyTime | San Francisco, CA, USA | May 2018 – Aug 2018
Full-Stack Developer

- Developed full-stack for MyTime's scheduling software using AngularJS, JQuery, Ruby on Rails and MySQL
- Worked with Twilio API on SMS forwarding feature
  - Optimized phone number lookups, reducing cost by 40%
  - Implemented SMS messaging to worldwide phone numbers
- Implemented tracking for SMS usage and monthly overage charges
- Added automated color-coding options for calendar tiles
- Refactored embedded ruby code into modularized AngularJS components

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

- Designed and implemented features for web-based mortgage lending platform using AngularJS, Bootstrap, JQuery, Laravel PHP and PostgreSQL
- Implemented various security features
  - Introduced user roles feature to control website access
  - Limited failed password attempts by IP and email combination
  - Added password strength enforcement
- Decreased loading time of main page from 4+ seconds to 2 seconds
- Optimized PDF generation feature, reducing generation time by 30%

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

- Developed tool for analysis of network card logs using Python
- Used card firmware source code to investigate error conditions
- 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
- 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 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 onto website after transpiling C++ to Javascript using Emscripten

Calculator
C#

- Graphical calculator implemented with object-oriented paradigm
- Uses Shunting-Yard algorithm to convert expression to Reverse Polish notation
- Finite state machine controls user inputs (i.e. cannot have 2 consecutive operators)
- Operators are set up polymorphically, allowing them to be generic

Compiler
C++, MIPS Assembly

- Implemented a fully functional compiler for a subset of C++
- Created tokenizer and parser to create parse tree, check C++ syntax and generate assembly code
- Created assembler to convert 32-bit MIPS to machine code