LEIF PEDERSEN

YEAR 2, COMPUTER SCIENCE MAJOR

https://github.com/Leifcnp http://leifcnp.com

TECHNICAL SKILLS

Languages: Java, TypeScript, C*, C++*, HTML*
Software: IntelliJ, WebStorm, Arduino, Visual Studio*, Tizen studio(eclipse)*
Tools/Testing: JUnit, Mocha and Chai, git

*currently acquiring

TECHNICAL EXTRACURRICULAR ACTIVITIES

UBC Rocket: Engineering Design Team https://goo.gl/4KAH5i June 2016 – present

- Performing unit and integration tests of flight computer and sensor system to verify all edge cases can fail safely
- Integrating IMU, altimeter and magnetomic sensors with; filtering, voting, error correction and fail state detection to ensure system can handle inflight failures
- Designed rocket avionics with full redundancy for dual deployment parachute system complying with all IREC Safety and Requirements Documents
- Designed and Optimized software to consider hardware interactions that could cause possible failure scenarios

DiviD: NWHacks Hackathon Project https://goo.gl/0Ak3ay Mar 2017

- Designed a web application to track fuel use and request payment from passengers
- Utilized Mojio API to pull data from cars for accurate fuel use and automatic trip detection
- Built HTML generation and REST endpoints the Python database/server

PERSONAL PROJECTS

Leifcnp.com: Personal website http://Leifcnp.com Apr 2017

- Created a personal website to link to my Resume, GitHub, LinkedIn, and Projects.

OverEarly: Samsung Wearable app https://goo.gl/j3m3XY Apr 2017 – present

- Designing a sailing app to time out the start horns of CYA standard races

ACADEMIC PROJECTS

UBC INSIGHT: TypeScript WebUI and Server Jan – Apr 2017

- Designed a REST server to parse, save, and query historic UBC Course data in JSON
- Implemented the EBNF of a Querying language to request subset of data. Refactored query engine to allow nested filtering reducing the query time from seconds to milliseconds
- Built a Frontend web UI for intuitive querying of the course data allowing full use of the Querying system
- Defined and wrote system to generate a course schedule for a selected subset of the room and course data

Busses R US: Translink Android app Sept – Dec 2016

- Built an Android app that retrieves real-time bus information via Translink API and displays it as an overlay on a map of greater Vancouver
- Developed a parser for JSON received from the Translink API, Tested algorithms and Classes using Junit, all cases were 100% covered
- Implemented filtering for segments of a bus routes/stops to render on current map view, responsive on android emulator and physical device

VOLUNTEER EXPERIENCE

Lab Demonstrator: GVRSF Lab tour Mar 2017

- Oversaw the running of lab demos for Greater Vancouver Regional Science Fair Winners

WORK EXPERIENCE

Dry Dock Technician: Cruise Ship Glass Apr – May 2015

- Worked with glaziers painting, sealing, and installing glass and window frames in an industrial ship yard
- Packed and Unpacked gear
- Oversaw safety of team members and coworkers

EDUCATION

University of British Columbia Sept 2016 – Present
2nd Year Bachelor of Science, Computer Science Major (90.7% average)

Langara College Sept 2014 – May 2016
General Sciences (3.5 GPA)

- Dean's Honour Roll

INTERESTS

Sailing, VR, and Videogames
Aerospace, Bioinformatics, Computer and Biological Intelligences