# JORDAN HEINRICHS

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### Skills

- Competent and experienced programming using C++, C, Javascript, and Perl
- Experienced with MySQL, Python, Ruby, and Java
- Front-end experience with jQuery, Angular 2 with Typescript
- Back-end experience with C++ CGIs, Node.js with Express, and RESTful APIs
- Strong problem solving and troubleshooting skills
- Uses Agile development practices including TDD and Domain Driven Design
- Knows Git and Subversion version control
- Experienced using Eclipse, Visual Studio, and Sublime
- Hard-working, motivated, and a team-player
- Enjoy challenges, learning, and problem solving
- Talented and passionate for electrical and software engineering fields

### Education

### BSc, Electrical Engineering, minor in Computer Engineering 2011-2016

- University of Calgary
- GPA: 3.9/4.0 cumulative
- Notable courses:
  - Computer Graphics Introduction (CPSC 453)
  - Database Management Systems (CPSC 471)
  - Principles of Software Development (ENSF 409)

## Work Experience

## Hitachi ID Systems, Inc., Calgary

May 2016 - Present

Software Developer

- Enhanced an ID/access management software used in large organizations
- Improved the product's front-end web interface with jQuery and Angular 2 with Typescript
- Back-end development with C++ and MySQL
- Maintained intergration tests with Ruby and Watir
- Windows development and testing environment with Git and Cygwin

## Lockheed Martin CDL Systems Ltd., Calgary

May 2014 - Aug 2015

Software Developer Intern

- Worked on software to interface between two protocols for UAV flight control
- Used Test Driven Development and other Agile methodologies

- Gained experience with C++ with QT, Perl, and Git
- Learned and implemented Domain Driven Design
- Developed for Windows, Linux, and Linux on ARM

#### NSERC Research, University of Calgary

May 2013 - Aug 2013

Summer Research Student

- Developed and executed tests to determine accuracy of a hexacopter dropping sensor nodes
- Troubleshooted and solved problems with the hexacopter which were preventing operation of the UAV and execution of the tests
- Created a program to capture position of the hexacopter using video tracking with C++ OpenCV
- Analysis of data using Matlab and C++ for the efficiency of sensor deployment
- Presented results and data in meetings and reports

### Extracurricular Activities

#### University of Calgary Solar Car Electrical Team

Sept 2013 - Jan 2016

- Created telemetry protocol to communicate over XBee radios
- Used C++ with QT framework
- Worked on embedded system for driver controls
- Interfaced with multiple systems over CAN, UART, and SPI
- Experienced with prototyping circuits and soldering
- Lead software developer, mentored newer members
- Team projects are located here:
  - www.github.com/UCSolarCarTeam

#### Many Mini Bots

Sept 2013 - May 2014

- A group dedicated for producing and interfacing many small bots
- Involved with building a tricopter
- Focused on documenting setup procedure for future members

#### Schulich Aerodesign Team

Sept 2011 - Aug 2013

- Received hands on experience designing and assembling a radio controlled aircraft
- Built two, greater than 2 meter wingspan RC plans for SAE Aerodesign Heavy Lift Competition
- Dealt with very limited resources and hard design constraints throughout the project

## **Hobbies**

- Back-country hiking and camping
- Long distance running, completed first marathon summer of 2015
- Video games