Michael Franko

email mchlfranko@gmail.com

phone com (403) 771 - 3876 website eng.uwaterloo.ca/~mdfranko

3B Mechatronics Engineering

I have a strong interest in designing and drafting mechanical solutions and believe that my previous experiences with mechanical and electromechanical hardware in the oil and gas industry have added great value to my skill set. I have a passion for problem solving and a keen desire to learn more about making beautiful designs.

Key Qualifications

- Exposure to a broad spectrum of mechanical and controls hardware in the oil and gas industry
- Highly proficient in AutoCAD, Unigraphics NX, SolidWorks and MS Excel
- · Strong programming skill set in a variety of environments and languages
- · Considerable hands-on experience in machining operations and setups
- Clear, confident communication skills gained working in both technical and non-technical environments

Experience

Wiring Lead, Throttle and Brake Lead | Jan 2014 - present | Waterloo, ON

University of Waterloo | Project: Baja Off-Road Vehicle

- Designed and wired the electrical components and safety wiring to competition specifications
- Reviewed the mechanical calculations and conducted a design review of the throttle and brake assembly
- · Machined parts and finished assembly of the throttle and brake systems

Electrical Hardware Designer | May - Aug 2012 | Calgary, AB

ABB | Project: Christina Lake / Jackfish 3

- Drafted design changes made to the Distributed Control System (DCS) storage containers and reviewed hardware layouts
- · Wired, tested, and troubleshot DCS modules to verify the product integrity before being sent to site
- Built a testing jig from spare hardware to identify faulty I/O cards before they were installed in the DCS reducing the time needed to preform safety verifications of the DCS modules

Mechanical Engineering Coop | Jan - Apr, Sept - Dec 2011 | Calgary, AB

Vista IMV Joint Venture| Project: Foster Creek Phase F

- Designed a vented truck service port and containment box, meeting Cenovus' safety specifications
- Rewrote specifications, researched, and purchased safety showers suitable for hazardous and all weather conditions to meet operational safety standards
- Tracked, specified, and purchased over 3,000 specialty items from detailed engineering designs

Front-End Software Developer | Sept - Dec 2013 | Calgary, AB

Shaw Communications

- Developed an internal monitoring system to proactively detect server malfunctions and critical service errors, enhancing customer experience by reducing the downtime of Shaw's cable TV guide
- Wrote the front end webpage analyzing and displaying critical, real-time data to cable operators

Software Engineering Tester | Jan - Apr 2013 | Waterloo, ON

NCR

- Introduced Jenkins and Hudson platforms to the existing automated test system increasing the test coverage and allowing for automated overnight code testing
- Worked closely with the requirements team, verifying all the customer requested features were included

Skill Set

Design Software AutoCAD SolidWorks Finite Element Analysis Unigraphics NX

Hands On

Adams Software

Prototyping Jigging Drafting Machining Welding Soldering Wood Working

Relevant Projects

Go-Kart BAJA Off-road Autonomous Boat Wii Smart Board

Languages

C / C++ Java SQL XML HTML / CSS JavaScript / jQuery PHP AJAX

Web Design

Wireframes Storyboarding

Environments

Windows Linux Red Hat Apache

Framework / API

Foundation Bootstrap Google Maps API

Education

University of Waterloo | Jan 2010 - Present | Waterloo, ON

- Candidate for Bachelor of Applied Science, Honours Mechatronics Engineering
- Relevant Courses: Machine Design, Mechatronics Design, Mechanics of Deformable Solids

Renison University College | May - Aug 2013 | Waterloo, ON

Resident Assistant (RA)

- Assisted first year students transition to university by encouraging independence and offering resources
- Organized, promoted and executed events to enhance the student life experience
- · Enforced residence rules to ensure health and safety of residents

Interests & Projects

Go-Kart | Sept 2011 - Aug 2012 | Calgary, AB

- Designed and constructed an 8hp go-kart capable of 40km/h as an extracurricular project
- Learned how to weld to manufacture the frame and many other critical components for the assembly
- Machined and manufactured all of the parts by hand and assembled the go-kart according to the drafted design

Autonomous Boat | Jan - Apr 2014 | Waterloo, ON

- Working with a group of classmates as the Mechanical Lead to build an autonomous watercraft which will navigate around the perimeter of a pool
- Managed the project schedule and the deliverables of the group
- Designed the hull and drive train for the boat using SolidWorks

Wii Smart Board | Jan - Apr 2010 | Calgary, AB

- Worked with a group of classmates to replicate an open source project which repurposed a Wii controller to become an infrared camera which was able to track an infrared LED on a pen
- Assisted a teacher in implementing the design as a useful teaching tool for his classes

Volunteer

- Heavily involved with the UW's Engineering Society outreach programs to get kids involved with engineering such as Rube Goldberg Day, K'nex Bridges at The Museum, and Girl Guides in Engineering
- Participated with the Engineering Society at CAN-struction to raise food for the less fortunate
- Involved as an instructor and coordinator at a wilderness survival boys camp most summers, sharing my knowledge and passion for the outdoors

Interests

- Active outdoors person who enjoys time hiking, camping, biking, rock climbing and exploring
- Plays a variety of sports such as hockey, soccer, and volley ball both competitively and recreationally