GURSHAN DEOL

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QUALIFICATIONS/RELATIVE ASSIGNMENTS

- Designed and developed a standby generator HMI using VB.NET, Archestra and Intouch WindowMaker as a part of a two man team while working as a SCADA HMI Designer at VASPAC Power Automation Consulting
- Experience in web design and development using the standard suite of HTML,CSS and Javascript libraries such as JQuery from working as a web designer and web content creator at Red Merle Ltd
- Experience in C++, C and MATLAB from in class projects
- Experience in Java, C, C++ and Javascript form personal projects and Hackathons
- Knowledgeable in AutoCAD, AutoDesk Inventor and SolidWorks design tools from graphics courses and design related clubs
- Exposure to power electronics such as linear and pneumatic actuators, motors (stepper, servo, DC) and circuit components from personal projects and hackathons

WORK EXPERIENCE

Wonderware SCADA HMI Designer

VASPAC (2014), Hamilton, ON   Jan to April, 2015

- Developed and wrote scripts using VB.NET and a proprietary Wonderware scripting language
- Managed database of virtual tags to test the HMI using Matrikon OPC
- Designed the layout and navigation system of a Standby Generator using Archestra IDE and Intouch WindowMaker
- Created graphics for display objects using Archestra Graphics technology

Design Intern

Red Merle Ltd, Burlington, ON   June to September, 2014

- Designed interactive and non-interactive content for web pages using Adobe InDesign
- Researched and authored news blogs discussing various professional careers, written and published through Weebly CMS
- Created white papers, forms and resources with Adobe InDesign CC, published online
- Strategic Consulting, including business plan & sales strategy development.

Stocker/Sales Associate/Cashier

Wal-Mart Canada, Burlington, ON   November to July, 2010-2011

- Worked in various departments and took on different tasks on a day to day basis
- Worked with customers in the electronics section to help with any problems they may have
- Supervised stocking and processing of food in the fresh produce section of the store

EDUCATION

Mechanical Engineering, Honors, Co-Operative Program, Biomechanics Option University of Waterloo, Sept. 2013- present
- Planned option in Biomechanics
- Gained experience in technical writing, use of machine tools and hand tools, programming in various languages and using equipment such as digital multimeters and oscilloscopes

EXTRACURRICULARS

University of Waterloo Hydroponics Team
University of Waterloo, Waterloo, ON   2015- Present

- Currently helping design a monitoring system that uses digital and analog input from a variety of sensors which are controlled by an arduino Leonardo
- The data is then analyzed and processed on our web server where we can monitor the current status of the tanks remotely
- Plans on implementing a standardized SCADA system which would allow us to control the tanks in the form of feedback loops to adjust any anomalies like water temperature fluctuation.

University of Waterloo Biomechatronics club
University of Waterloo, Waterloo, ON   2015- Present

- Working to design a pneumatic actuator powered exoskeleton glove along with a MYO armband to increase a user's grip strength. The MYO EMG Data will be analyzed to determine if the user is making certain hand gestures which will then signal the actuators to strengthen the hand gesture, such as unscrewing a lid

Engineering Society Representative
University of Waterloo, Waterloo, ON   2014 - 2015

- Helped make students voices heard and represented my cohort within the larger Engineering Community
- Volunteered during various Engineering Society events and charities

INTERESTS/PROJECTS

Hackathons
- Active participant in various hackathons in the Waterloo region and across southern Ontario.
- Previously won a sponsor prize from Estimote for my team's entry to DeltaHacks 2014.
- Created prototype for a hands free networking device that would allow users to exchange customized personal information with a handshake
- The device was worn on the wrist and used a combination of BLE and accelerometer data to transfer data between users' mobile phones

3D Printing
- Currently I am in the process of creating a basic 3D printer made from harvest electronics and mechanical systems recycled from inkjet printers, PC Fans and CD-ROM drives.
- Stepper motors from the CD drives control the printer head assembly from the inkjet along with an X-Y platform, the whole setup will be controlled using an Arduino MEGA microcontroller.