Shane Eastwood

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TECHNICAL SKILLS

Certificates: Lean Six Sigma: Green Belt – Canada Post (2017)
Software Languages: C, C++, C#, Python, VHDL
Command Line Tools: Git, VIM, GCC, GDB
Development Environments: MATLAB, Visual Studio, XCode
Modelling Software: AutoCAD, Designworks, LTSpice, CATIA, DELMIA
Virtualization Software: VMWare, VirtualBox
Operating Systems: Windows, MacOS, Linux-based OS, Android, iOS
Embedded Systems: Raspberry Pi, Arduino
Electronics: Robotics, Circuit construction, Circuit troubleshooting, Oscilloscopes, Multimeters, Function Generators
Hardware: Soldering, ICs, PCBs, Optical lenses, Mirrors
Video Editing and Imaging: Davinci Resolve, Image processing with MATLAB, Acquiring data with OpenCV, Acquisition within an optical system

WORK EXPERIENCE

Manufacturing Automation Specialist   Jan 2019 - Present
Cadmakers, Vancouver, BC
- Designing 3D models of construction components and applying problem solving skills for the clashing of objects in a defined space using CATIA
- Providing simulation sequences and demonstrations for assembly products and robots in a work cell

Research Assistant   Oct 2018 – Dec 2018
Biomedical Optics Research Group, Burnaby, BC
- Aided in building, aligning, and improving an optical system for image acquisition of a mouse eye
- Designed a programmable shutter with the speed on the scale of milliseconds to control laser exposure to a mouse eye

Entry-Level Process Engineering   Sept 2016 – Aug 2017
Canada Post, Richmond, BC
- Communicated through presentations detailing new safety and mail handling procedures and provided training to operators for newly installed systems
- Designed and/or improved layouts of work centres to improve workflow and safety for operators using observation and data collection and analysis

Junior Software Developer   Jan – Aug 2013
Broadcom Canada, Richmond, BC
- Collected statistical data on current product for benchmarking to understand the improvements of the next-generation product that was currently in development
- Experience with C and debug symbols from GDB allowed for the location of a bug that caused a smoke test to continuously fail

PROJECT EXPERIENCE

Robotic Arm   In Progress
- Used the hardware capabilities of Raspberry Pi, Arduino and servo motors for controlling a robotic arm to pick up objects
- A Python script from the Raspberry Pi sends motor co-ordinates to the Arduino where C is used for controlling the motors

Cell Identification   Jan – Apr 2018
- Image processing techniques were used on a dataset of images consisting of cells in a petri dish over time through MATLAB
- Cells were identified and outlined and then saved as an image to create a new dataset displaying identified cells in a petri dish

D.I.S.C.O. L.A.S.E.R   Jan – Apr 2016
- Collaborated with a group to design a non-lethal solution for warfare or public security to reduce casualties
- Helped design and solder circuits for powering motors and lighting units and programmed the rotation of the motors holding the lighting unit using C++

MP3 Player   Mar – Apr 2015
- Programmed a FPGA board to function as an MP3 Player using VHDL with full functionality of volume control, equalizer, balance, mute and echo
- Utilized the available LEDs on the board to give feedback for the user of the volume and speaker balance

EDUCATION

Simon Fraser University   Degree Conferred: Oct 2018
Bachelor of Applied Science - Biomedical Engineering (Honours)

British Columbia Institute of Technology   Completed: Apr 2009
Electronics Technician Common Core Program