

Harsh Bhatt

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Work

EdgeBotix

July - Dec 2014

Founder | www.edgebotix.com

Singapore

- Venture to commercialize robotics platform from research lab into an educational tool
- Delivered 50 robots as pilot batch to first customer within a four month timeline
- Fully designed, prototyped and tested ARM based hardware platform, firmware, as well as robot body
- Managed all operations, from technical to handling off-shore supply chain to delivery
- Main developer of a WiFi enabled environmental datalogging platform to be used by 250,000 students
 - Project commissioned by the National Research Foundation of Singapore | www.harshb.com/NSE

Singapore University of Technology and Design

May - Aug 2013

Robot Developer/Researcher

Singapore

- Architected application specific ARM powered robotics platform from ground up using EAGLE
- Developed hardware around the needs and budget of evolutionary robotics research project
- Robot controller incorporated wireless communication hardware, 9 DOF sensors, power management circuits as well as a camera interface
- Designed and 3D printed various prototype robot bodies using Autodesk Inventor
- Compiled software libraries to easily run and test robot hardware setup

General Motors

Sep - Dec 2012

Controls Engineer

St. Catharines, ON

- Installed an HMI touchscreen to provide manual controls on a section of V8 engine block machining line
- Updated PLC code to interface with newly installed HMI station
- Implemented plant floor paging system on 30+ stations for tradesmen to inform maintenance department
 - Decreased machining line downtime by 20%
- Upgraded internal part database servers to more reliable RAID systems

Skills

Hardware

Schematic and Board Design | EAGLE | Altium | ERC/DRC | DFM Optimization | Testing Jigs
Spark Platform | mbed Platform | Arduino | ARM | Sensor Interfacing | Meshing Protocols

Software/Firmware

Embedded C | Python | Java | C++ | Application Specific RTOS | Online and Offline Toolchains

Design

Manufacturing & Assembly | Machining Processes | CNC | 3D Printing | Inventor | Solidworks

Projects

Modular Wireless Datalogging Platform

Broadcom SoC powered, battery operated data logger, with a large sensor set and meshing capabilities

eBots

Compact, dual tread robot running custom RTOS, interfacing with a Python API on a host over BLE

Other

Ambient Lighting | LED Cube | Quad Copter | FIRST Robotics Mentor

Education

University of Waterloo, Mechatronics Engineering

Sep 2011- Present

Queensland University of Technology, Academic Exchange

Feb - June 2014

Awards

Norman Esch Enterprise Co-op Award | \$5K

Engineer of the Future Trust | \$2.5K

Ontario Scholar's Award