Guli Meng
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Highlights of Qualification:

- Analog, digital, and mixed circuitry design
- Cadence Package: Design Entry HDL, Orcad Capture, PSPICE, Allegro PCB Editor
- Lab equipment: Oscilloscope, Power supply, Battery simulator, Multimeter, Signal generator, Network analyzer, Spectrum analyzer, Electric load, etc.
- Teardown analysis and generate report, identify main chipsets of the system
- Experience in supporting multidisciplinary design teams to ensure requirements are satisfied
- Create and perform system validation procedures based on functional requirements
- Ability to identify failures and troubleshoot corresponding technical problems, investigate root causes, and create permanent solutions
- Understanding of board stackup, microstrip/stripline transmission line routing techniques, controlled impedance termination, and signal integrity simulations
- Understanding of applying proper grounding to reduce noise, thermal management
- Knowledge of crystal oscillator to generate system clock signals
- Experience with power management (LDO, DC/DC, battery charging, etc)
- Experience with discrete semiconductor (diodes, amplifiers, transistors, LC/RC/RLC filters)
- Experience with data communication protocols (I2C, SPI, UART, USB)
- Experience with standard RF interfaces (BTLE, NFC), baseband
- Experience in product certification tests (UL, FCC, CE, EMC/ESD), simulate tests in-house
- Experience with embedded software development and ARM Cortex-M processors
- Proficiency in windows and Linux OS
- Programming languages: C, python, assembly, VBA, SQL, HTML, JavaScript, CSS
- Familiar with AutoCAD, NX Siemens Software, Matlab, Labview, PLC
- Great interpersonal skills, strong oral and written communication skills
- Experience working with ODM, EMS, understand entire product development process from conceptual stage to completion for mass volume production design (scope, schedule, cost, technical, resource, process adherence, and risk management)

Education:

Bachelor of Engineering and Management, Mechatronics Co-op
McMaster University, Hamilton, ON 2011 - 2017

- Recognition for academic excellence by achieving a 10.6 GPA on the McMaster's 12-point scale in the final academic year
- Named to the Deans' Honour List
- **Capstone Project:** "ForSight" is a wearable prototype that is designed to be worn by visually impaired patients in an indoor environment for navigation. The system consists of various components, range detection are done using ultrasonic sensors and infrared sensors, image is captured using Microsoft Kinect, and the information are processed on an Arduino and a Raspberry Pi. Communication to the user is established through Bluetooth bone conduction headphones, and processed information of the available path is continuous relayed to the user.

Work Experience:

McMaster University - Teaching Assistant (PHYS 1D03 & 1E03) Sept 2016 – Apr 2017

- Teach tutorials and prepare lessons on example problems
- Guide students through labs
- Invigilate examinations
- Mark lab reports and tests

Flex - Electrical Engineering Intern May 2015 – Aug 2016

- Troubleshoot/debug electrical system (Consumer Electronics)
- Hand on assembly, rework boards using soldering station and microscope
- Create validation plan based on requirements (both board level and system level)
- Perform acoustic and environmental testing
- Cooperate with Mechanical and System teams with design validation
- Interact with customer/clients, interface with suppliers
- BOM managements and evaluate alternative options (performance, price, size, etc)
- Record assigned duties, generate technical reports based on collected data
- Hardware design project (Bluetooth Speaker)
    - Develop project scope, analyze feasibility of requirements
    - Create block diagram and component selection
    - Create symbols and draw schematic
    - Create padstacks and footprints
    - Components placement and PCB layout
    - Mount components onto PCB and perform board and system level bring up
    - Troubleshoot and improve design flaws, apply on-board rework

McMaster University - Teaching Assistant (PHYS 1E03) Jan 2015 – Apr 2015

- Teach tutorials and prepare lessons on example problems
- Guide students through labs
- Invigilate examinations
- Mark lab reports and tests

McMaster Hospitality Services (East Meets West Bistro) Sept 2012 – Sept 2014

- Communication and customer service

Extracurricular Activities:

Student Member Sept 2011 – present
McMaster Engineering Society

Private Tutoring (Volunteer) Sept 2010 – June 2011
Teach high school math and physics

Church Camp Assistant (volunteer) Aug 2010
Organize summer camp for children

Librarian Assistant (Volunteer) Sept 2009 – May 2010
Customer services and sorting books, DVDs, CDs, stamping

Social Community Worker (volunteer) Aug 2009
Organize “Summer Fest” event for the local community