AKASH KALIMILI

EXPERIENCE

Translaid: Hardware Engineer/Full Stack Developer 2015

Using Myo arm bands, wrote scripts to distinguish between 15 gestures and developed a pipeline program to interface with Myo scripts and Arduino for an external LCD Display. Interfaced with Mac Display and Voice libraries for language translation. Accomplished working prototype in 20 hours for EngHack 2015.

Wireless Inertial Navigation System: Hardware Engineer 2014 - 2015

Developed position tracking through implementation of integration algorithms using a FPGA with wireless data transfer (Bluetooth 4.0) from a mobile accelerometer unit. Solely, designed and created all circuitry including analog conditioning, digital processing, digitization, and serialization circuitry. Coded integration and error algorithms in Verilog.

Wireless Prosthetic Hand: Hardware/Software Engineer 2013-2015

Lead a team which built a prosthetic hand which replicated motions of a user. Flex sensors served as asource of data, and a micro controller was used for data processing. Project was showcased at the USA Science and Engineering Festival, Malaria Fair, TJHSST Open House, and Techstravaganza. Bluetooth was later incorporated to provide wireless capability allowing control from an Android phone.

AM & FM Modulation: Hardware Engineer 2013-2014

Designed AM & FM modulation circuitry with op amps, power amps, RC filters. Simulated circuitry with PSpice and CircuitLab. Troubleshooted and analyzed circuitry with oscilloscopes and multimeters.

Prepare2Excel: Academic Intern 2014

Taught Mathematics and English. Prepared and developed study guides and lesson plans to employer's specifications. Communicated and/or responded to parents' questions and requests to employer. Created and proposed a new method of grade storage and data analysis using MS Excel.

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EDUCATION

University of Waterloo

Candidate for Bachelor of Applied Science -Electical Engineering
2015-2020 (Expected)

Thomas Jefferson Highschool for Science and Technology

Thomas Jefferson Diploma

VA, USA, Sept. 2011- June 2015

SKILLS

Hardware: MicroControllers, FPGAs (NEXYS 3), Power and Voltage Regulation Design, Microprocessors, Serial Communication (Bluetooth 4.0), Analog and Digital Signal Processing, Mixed Signal Circuitry, Robotics, Circuit Analysis, Troubleshooting, Schematic Design

Software: Python, C, C++, Android SDK, Git, PSpice, Eagle, Inventor, Solidworks, Xilinx ISE, Arduino IDE

Equipment: PCB Mills, Mixed Signal Oscilloscopes, Soldering Irons, Machine Shop Equipment, 3D Printers