

TECHNICAL SKILLS

- Over 3 years of professional experience in all stages of board design cycle: architecture, schematic capture, stackup creation, layout and routing, bringup and debug
- Workplace know-how of PCB manufacturing process: fab and assembly level DFM, BOM management through Agile PLM, engineering validation testing
- Board level experience with I2C/SMBus, PCIe, power sequencers and step down regulators, routing 25Gb Ethernet to reduce insertion loss, reflection, and crosstalk. University courses in microprocessor systems, RF systems, integrated and discrete analog electronics
- Adept at picking up new skills and concepts –shown by six internships in varied industries and quick ramp at Arista Networks
- **CAD and Simulation:** Cadence OrCAD and Allegro, Altium Designer, DxDesigner, Hyperlynx, Sigrity DC, ADS, Solidworks
- **Lab/Debug:** real time and sampling scopes, electronic loads, VNA, TDR, SMT as small as 0201, protoboarding, metal and plastic machining (mill, lathe, bandsaw, etc.)
- **Other:** PLC ladder logic, Microsoft Office, Visio/Omnigraffle

WORK EXPERIENCE

Arista Networks

Hardware Engineer

June 2014 to Present

- Hardware design of high speed (10Gb/25Gb), high power (150W+), high density (1000+ pin BGA's), multi-layer (20+), modular and fixed Ethernet switch PCBs
- Sole hardware engineer on 3 different products for all stages, including: architecture, schematic capture, stackup design, thermal simulation, board layout and routing guidance, bringup, production support
- Bring-up and debug of power, clocks, low and high speed digital signals using real time and sampling scopes, VNA, TDR
- Leading team of hardware engineers in recruiting and mentoring of multiple interns

Arista Networks

Hardware Engineering Intern

May 2013 - Aug. 2013

- Designed switch controller test card from start to finish, from Spec definition to Schematic design to bringup: <http://www.ericyam.com/arista-networks/>
- Investigated and Evaluated multi-phase CPU Core power supplies for performance under high current transient loads

Apple

Engineering Project manager (EPM) Intern

Sep. 2012 – Dec. 2012

- Lead manager for field failure analysis (FA) of new Lightning based accessories for iPhones, iPods and iPads, as well as new EarPod earphones
- Initiated and managed a unique unit tracking system, and developed process flow for sustaining FA to be conducted by accessory manufacturers

Nuvation Engineering

Hardware Design
Engineering Intern

Jan. 2012 – Apr. 2012

- Designed circuit/schematic and component selection of automotive grade battery management Tank controller: <http://www.nuvation.com/battery-management-system>
- Board featured 16 bit MCU, 4 isolated power domains, 20 high side load drivers, Ethernet, CAN, SPI, LINBus & SMBus connectivity, and designed to tolerate harsh battery transients

Christie Digital

Electrical/Mechanical
Engineering Intern

May 2011 – Aug. 2011

- Improved cooling of cinema processing FPGA by 30°C for over 2000 in-field projectors
- Developed and performed extensive impedance test and analysis of PCB bypass capacitors

EDUCATION

Bachelor of Applied Science, Honours Mechatronics Engineering

University of Waterloo - Waterloo, Ontario (Sept. 2009-May 2014)

Relevant courses (and concepts covered):

- Microprocessor Systems and Interfacing (parallel and serial buses, synchronization)
- Radio and Wireless Systems (transceiver architectures, Analog and Digital Modulation, system figure of merits)
- Sensors and Instrumentation (op-amp circuits, filters, signal conditioning)
- Microprocessors and Digital Logic (Combinational Logic Design, Sequential Logic & state machines)
- Integrated Analog Electronics (differential gain stages, feedback amplifiers, output stages)
- <http://www.ericyam.com/my-education/> for specifics

ADDITIONAL PROJECTS

Sparkdrive

Jan. 2014 –March 2014

- Member of 4 person team that designed and built an electric skateboard for university final year design project: <http://www.ericyam.com/sparkdrive/>

Autonomous Boat

Jan. 2013-April 2013

- Designed autonomous boat with 4 other students as part of university class: <http://www.ericyam.com/autonomous-boat/>

INTERESTS/HOBBIES

- Badminton, Rock Climbing, snowboarding
- Data Visualization and Infographics