Aaron Reed Young

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Knoxville, TN 37909

Computer Engineering Masters Student

Work Experience

University of Tennessee, Knoxville

- January 2016–Present: Research with the Neuromorphic Computing Group. Developing applications to test the effectiveness of neuromorphic computers and assisting with the path from the hardware to the processor.

Garmin International, Inc., Olathe, KS

- Summer 2015: On the Aviation Software-Navigation Library Team. Improved the Navigation Library by revising requirements, making changes to the code base, and creating new test cases.

Oak Ridge National Laboratory, Manufacturing Demonstration Facility, Knoxville, TN

- Summer 2014: Programmed slicing engine for use with ORNL's two large-scale additive manufacturing machines using C++ and C#. Software was used to print the world's first 3D printed car.

Siemens Medical Systems, Knoxville, TN

- Summer 2013: Implemented embedded system control software using MQX RTOS on an ARM9 processor. Development included interfacing with GPIO, I^{2}C, SPI, CANopen, RS-323, and Ethernet. Embedded software supported interfacing to LEDs, LCD, FPGA, Temperature and Humidity sensors, EEPROM, DACs, SFP+, and a Power Controller. Designed a C# testing interface to communicate with the processor over TCP/IP.

- Summer 2012: Designed a system using an Altera Stratix IV FPGA development board to read data from two TI 1 GHz ADCs. Developed a NIOS II FPGA soft-core running μC/OS-II using Quartus II. Designed a C# application to interface with the development board using UDP/IP.

- Summer 2011: Used C# and ASP.NET to develop a database-driven website to keep track of employee's tasks. Learned and utilized LINQ to access the SQL database records.

Education

- University of Tennessee, Knoxville, PhD in Computer Engineering Fall 2017–Present, GPA: 4.0. Will complete PhD Degree 2021.

- University of Tennessee, Knoxville, Master's Degree in Computer Engineering, Fall 2016–2017, GPA: 4.0.

- University of Tennessee, Knoxville, Bachelor's Degree in Computer Engineering, Chancellor's Honors Program, EECS Honors. Fall 2012–Spring 2016, GPA: 4.0.

- Engineering in London Study Abroad Program: Spent five weeks in London earning six University of Tennessee engineering credit hours, June 2013.

- Hardin Valley Academy, Knoxville, Tennessee, High School Diploma, May 2012. GPA: 4.38 / 4.0. Received college credit for AP classes.

Awards

- Bodenheimer Fellowship Recipient, August 2016–Present.

- Top Collegiate Scholar, College of Engineering, The University of Tennessee, May 2016.

- Outstanding Computer Engineering Senior, Department of Electrical Engineering and Computer Science at the University of Tennessee, December 2015.

- Outstanding Computer Engineering Senior, Department of Electrical Engineering and Computer Science at the University of Tennessee, December 2014.

- Outstanding Computer Engineering Junior, Department of Electrical Engineering and Computer Science at the University of Tennessee, December 2013.

- Min H. Kao Electrical and Computer Engineering Scholarship Recipient, 2013–2015.

- Alcoa—College of Engineering Study Abroad Fellowship, 2013.

- Tau Beta Pi, The Engineering Honor Society, 2013.

FIRST Robotics Participation

- Mentor for Hardin Valley Academy FIRST Robotics Team. Set-up source code version control. Assisted with teaching programming to students. Provided support at Regional Competition, 2012–2013.

- Computer Programmer for Hardin Valley Academy FIRST Robotics Team. Used C++ to design, simulate and implement the robot's control system and autonomous mode. Assisted with electrical set-up and mechanical manufacturing. Participated in regional and national competitions, 2011 & 2012.