Ryan M. Summers

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Education:

Washington State University, Pullman WA *Expected Graduation: May 2017*
Computer Engineering
GPA: 4.00

Lakewood High School, Marysville WA G*raduated June 2013*
GPA: 3.97

Technical Projects:

Autonomous Mow-Bot *Summer 2014 – Present*
- Worked on developing a small robot to autonomously mow lawns
- Wrote C code to control 2 motors simultaneously
- Designed layout for custom circuit board

Multi-threading processes in dynamic music management *August 2012 – March 2013*
- Worked on creating a program to generate music using prerecorded sounds
- Self-taught multithreading processes in Java
- End result created a dynamic drum line that changed slowly and fluidly with time

Computer Design and Server management *July 2011- January 2012*
- Researched components and constructed my own computer
- Learned to create Unix-based server environments and hosted and maintained a number of personal servers
- Worked on optimization of computer components and networking

Work Experience:

Systems Developer – WSU Information Technology Department *January 2014 – Present*
- Work with Unix-based servers to create and design a WordPress website
  - Includes use of PHP and HTML
- Work with SQL databases and C# to maintain a timecard management program
  - Includes use of ASP.NET, C#, and SQL

Student Electrical Engineer – Snohomish County Public Utility District *June – August 2014*
- Worked on implementation of smart grid technology
- Responsibilities included bug testing a large piece of software and writing up detailed documentation on errors encountered
- Working to implement passive sonar technology

Leadership and Volunteer Activities:

Electrical Engineering – Team Lead – RoboSub Club of the Palouse September 2014 – Present
- RoboSub is an autonomous robotic submarine created by students from WSU and U of I
- Supervise 10 engineers as the project manager of the electrical engineering team
- Working to implement passive sonar technology

Resident Advisor – Washington State University August 2014 – Present
- Help students become active on campus by promoting clubs and extracurricular opportunities
- Support residents to develop a functional community by planning events such as group hikes

Day Camp Assistant – Camp Killoqua June-August 2009 & 2010
- Volunteered at a local Campfire USA camp supervising young children
- Total of 160 volunteer hours
- Helped lead children ages 6-12 and organized and managed events and schedules

Senior Patrol Leader – Boy Scouts of America January 2010-December 2013
- Organized fundraising events, group trips, and meetings
- Helped lead and teach younger scouts

Awards:

Eagle Scout – Boy Scouts of America August 2012
- Project involved creating a large entrance sign for a local park, acquiring funding from local business to finance project, design of signs and structure, and leadership and coordination of a large group of volunteers.

Valedictorian – Lakewood High School Graduating Class of 2013 June 2013

United States Marine Corps Scholastic Award June 2013
- Awarded to a graduating high school senior for academic excellence.

Masonic Award of Excellence June 2013
- Awarded to a graduating high school senior for excellence in academics and leadership

Washington State University Regents Scholar June 2013
- Awarded to two high school seniors for academic excellence and achievement.

Phi Beta Kappa Book award June 2013
- Book award presented to a high school senior for outstanding academic achievement.

President's honor roll – WSU Fall 2013 & Spring 2014
- Awarded by Washington State University for a minimum grade point average of 3.50 with enrollment in at least 15 credits.

Research and Areas of Interest:

Research lab at Washington State University *October 2014 - Present*

- Working with statistical analysis for genome wide association studies.
- Working on time-efficient methods for optimization of large matrix calculations
- Working with parallel processing of large scale data to drastically reduce calculation time requirements
    - Involves an extremely in-depth understanding of the C programming language and dynamic memory allocation

Robo-sub club – Hydrophones and microcontroller code *September 2014 - Present*

- Developing microcontroller code to be used in passive sonar technology
- Project involves self-taught microcontroller programming and 3-dimensional analysis of time delays to determine positioning of emitted sounds.

Artificial Intelligence and Machine Learning

- Greatly interested in how programs can store information based on previous results to modify existing algorithms to work towards the solution to a complex problem.

Autonomous Robotics

- Involved in researching methods of effectively establishing communication paths to allow robotics to directly communicate with channels to allow for independent calculation, eliminating the need for user input