GARRETT MARCHESE

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Education

University of Nevada, Reno December 2017
Bachelor of Science in Computer Science and Engineering | Minor in Mathematics

Employment

Research IT at Desert Research Institute January 2018 – June 2018
- Developed a Python script to reduce time to download dataset from FTP server by a factor of 3.75 by utilizing multiprocessing library.
- Set up an open source IP Address Management program called phpIPAM on a Linux OS with an Apache HTTP server instance and MariaDB backend to clean up DNS entries and DHCP reservations to increase system deployment efficiency and network management capability.
- Wrote a Python script to automate the task of aggregating approximately 10,000 staff member leave records stored on an internal webpage for the HR department. In doing so I consulted with a staff member to ensure the data was delivered in an acceptable format and achieved a reduction in time to accumulate data.

Student Worker II at Desert Research Institute May 2017 - December 2017
- Configured two virtual teaching labs using Citrix server virtualization technology for dynamic deployment of operating systems required by different courses taught at the institution, reducing time for classroom setup.
- Deployed Linux OS and Windows OS file servers for several groups operating within the institution allowing for an increased amount of storage for each research group utilizing the servers.
- Implemented Dell server management technology to effectively monitor approximately 65 servers and reduce time to push various system updates to each server using a single web based interface.

Help Desk Intern at International Game Technology May 2014 - November 2014
- Resolved software and technical related issues of low to high workflow impact communicated by staff.

Experience

Gamer Case
- Designed and implemented a prototype for a chargeable Bluetooth mobile game controller embedded in a 3D printed smartphone case.
- Utilized Arduino 101 which contains the Intel Curie Module designed for IoT devices.
- Hardware components were soldered and assembled in a low-profile format and code was written in the C programming language, development was conducted in the Arduino IDE.
- Compatible with an open source application developed for Android OS.
- Scrum framework was adopted to ensure the project was completed by innovation day, a public convention.

Database Design and Implementation
- Worked with a team to design an entity relationship diagram to satisfy needs of a fictitious toy manufacturing company. Then designed a prototype ERD that was used for the SQL implementation.
- Imported sample data with Microsoft SQL Server Import Wizard into tables developed for the ERD.
- Wrote SQL select statements that satisfied expected output tables defined by the project requirements.

K-12 Outreach Program
- Educated middle school students about concepts in engineering while working with a multidisciplinary team.
- Created electrochemical batteries with common household items.
- Configured batteries in series and measured output, then visualized results by connecting an LED.
- Inspired the next generation of engineers.

Languages and Technologies

- C, C++
- Experience with Python, SQL, Swift 3, OOP, Windows, Linux, Git, Arduino, Microsoft SQL Server Management 2012, XCode, Eclipse, Apache, Citrix, Vim