Derek Plautz

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EDUCATION

B.S. Computer Science & Engineering • Spring 2017 • The Ohio State University • GPA (three years): 3.6

- **Completed coursework:** software design, algorithms, data structures, runtime analysis, architecture, operating systems, databases, web applications, networking theory
- **In-progress coursework:** web design, socket programming, automata and formal languages, C# / .NET programming
- **Focus:** networking specialty with a passion for teaching and learning

M.S. Computer Science & Engineering • Spring 2018 • The Ohio State University

SKILLS & ABILITIES

- Active personality, interpersonal skills, attentive listener, determined, diligent
- Strong knowledge in Object-Oriented Programming
- **Languages:** Java, C/C++, C#, Ruby, Python, Bash, Matlab, HTML/JavaScript/CSS, SQL, R
- **Frameworks:** Git Version Control, Ruby on Rails, Bootstrap, jQuery, .NET, Node.js, Amazon Web Services
- **Operating Systems:** Windows, Unix/Linux (Ubuntu, RedHat), MacOS

PROJECT EXPERIENCE

Verizon Intern Main Project – IBM Tivoli Storage Manager (Data Backup) • Summer 2016

- Audited thousands of remote servers with Bash script concurrently using HP Server Automation software
- Script found if TSM was operational and running, if not it reported the occurrence to a database and restarted TSM

Verizon Intern Side Project – Model Implementation (Equipment Info Application) • Summer 2016

- Helped implement multiple database calls for an application that retrieves information about various pieces of equipment (phones, tablets, chargers, etc.). This application is used by all Verizon call representatives and store workers.
- Frontend written in ASP.NET with the backend in C# and VB.

Network Programming – TCP Implementation Using UDP System Calls • Autumn 2016

- Created a TCP-like daemon in C by only using UDP network calls and sockets.
- Features include buffering of data, sending and receiving acknowledgements, using timeouts for each packet.
- End result was the ability to send a file from client to server without corrupting, losing, or reordering any bytes of data, even through a program that deliberately manipulated packets.

Research Project – Pedantic Interactive Cache Simulator (Dr. Jeffrey Jones) • Autumn 2016 to Present

- Currently building a visualizing teaching tool for a parallel computing class that illustrates cache usage and performance.
- Backend C-program calculates cache usage using several input parameters such as cache size, block size, number of sets, replacement strategy, etc.
- Tasked mainly with the web based frontend build with a Bootstrap design and JQuery logic.
- Backend program called using the CGI (common gateway interface), by passing parameter values through the URL.

Verizon Intern Hackathon – Amazon Echo (Alexa Skill) • Summer 2016

- Competed in company-wide intern hackathon to create a speech-based UI application using the Alexa Skills Kit.
- Created a news application, written using Node.js, that retrieved various articles using the Bing Search API and the user could choose to keep or discard any article.
- Once completed, a compiled web page, hosted on an AWS Linux instance, displayed the users kept articles. A text message with the web page URL was sent to the user using the Twilio API.

WORK EXPERIENCE

X86 Cloud Implementation Intern • Verizon Wireless • Summer 2015, 2016

- Worked on the Windows & Linux build and maintenance team. Wrote various scripts in PowerShell/Bash to diagnose and fix server issues. Streamlined maintenance by creating various automation scripts.
- Was introduced to many exciting IT topics and business strategies such as Agile Development, DevOps, Cloud Services.

Teaching Assistant • Ohio State Department of Engineering Education • 2014 to Present

- Teach fundamentals of engineering to incoming freshmen and transfer students. Coursework is primarily SolidWorks and Matlab with a heavy focus on teamwork and lab reports. Managed grading for 30-70 student class.

ORGANIZATIONS

- **Beta Theta Pi:** Founding Father for the Theta Delta Chapter at Ohio State.
- **Off The Lakes Productions:** Entirely student-run musical theater organization.