

# CRYSTAL L. YOUNG

## Software Engineer

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## Unpublished Projects

### Google Spreadsheets

2021

#### Multi-User Networked Excel duplicate (remake)

Server Network & Docker Programmer

Docker Linux spin up • C++/C# • 5 member team

- Created the DockerFile for hosting the server side of the networked multi-user spreadsheet
- Worked with the team to link up the client's interface with the running server, receive the messages, and update all existing clients of changes as they happen.

### Router Network Communication

2021

#### Networked UDP & TCP nodes

Visual Studio/Command Line compiled • Java • Solo project

- Project to imitate how routers handle passing or dropping packets based on the rule in the routing table.
- Node A will randomly generate numbers for the header as well as a random message to be sent. Data is set over UDP to the router, and if it passes the right rules, the message is sent to Node B.

### Tank Wars

2020

#### MultiNetworked artillery (remake)

.Net executable • Visual Studio • C# • Peer Programming team

- Programmed the Backend Network Controller
- Created the console start up for the server and multi-threading data access for each client
- Designed the GUI from given and created assets and added our own twists for the client and server to share

## Relevant Course Work

- Data Structures and Algorithms
- Computer Organization and Design
- Networking
- Software Practices 1 & 2

## Work Experience

### Network Intern, University of Utah

2016 - Present

- Work at improving personal understanding of Network topologies
- Furthering personal growth and understanding of Linux systems and Command Line actions
- Create and keep records of personal growth in relevant knowledge basis' for weekly and monthly sync-ups
- Experience within Android Studio to create a user interface with Raspi3 robot run on UDP
- Trouble-shoot user level issues within the clusters via Jira, and currently Service-Now
- Spun up resources within GENI Experimenter to create experimental resources with which to test different programs/processes in a safe environment
- Create system logging from the base (grep file), up to the Elasticsearch/LogStash level
- Gathered data via SSH/VC to logs to complete a DoD 5220.22m Nwipe for secure future use
- Utilize company equipment to expedite all job necessities in a timely manner
- Ensure proper care of all company equipment

## Tools & Skills

### Tools

Visual Studio      Eclipse IDE  
Android Studio      Perforce  
Git Source Control

### Languages

Java      C#      C++/C  
Kotlin      Python

### Skills

Linux, PC, Mac OS  
Command line  
Command Prompt  
Ansible Automation  
Android Development  
MySQL queries & SQL database  
Shell & Bash Scripting  
Test case development  
Regression Testing  
Algorithm Complexity Analysis  
Data Center Cluster Basics  
Elk Stack Monitoring

## Education

University of Utah      Present  
Bachelors of Science  
Computer Science in Games

Utah State University      2016  
General Education

## Extracurriculars

Joined the 2020 season HackTheU as a club organizer on the marketing team

Volunteered during the 2019 season HackTheU overnight hackathon event