

# SKYLAR SHYU

## EDUCATION

### University of Utah – B.S. in Computer Science

*Aug. 2015 – May 2019*

**Relevant Coursework:** Algorithms; Computer Systems; Database Systems; Intro. to Scientific Computing; Mobile App Development; Natural Language Processing; Programming Languages; Software Practices I & II; Web Software Architecture; Visualization for Data Science

## WORK EXPERIENCE

### Symantec Corporation

*Draper, UT*

#### Software Engineering Intern

*May 2018 – Aug. 2018*

- Automated the continuous integration (CI) testing process using Python scripts and Jenkins
- Wrote 300+ unit tests in Python to test both UI (REST API) and CLI functionality of software builds
- Reduced the run time of CI tests by 75% via executing concurrent subprocesses
- Created a dynamic website using Python's Tornado framework, front-ended with Nginx
- Designed, implemented, and documented a SQLite3 database to hold parsed XML results
- Visualized test results via D3, rendering a layout partition chart denoting skipped, passed, and failed tests

### University of Utah – IT (UIT)

*Salt Lake City, UT*

#### Campus Web Hosting Intern

*Jan. 2018 – May 2018*

- Re-wrote and stress-tested a Python script that SSH'd into Linux webhosts to pull server metrics
- Configured, standardized, and migrated over 13 sites from test to prod environments using Puppet and ensured their certificates were up-to-date and installed properly

## TECHNICAL EXPERIENCE

### Personal Project: Course Watcher

*Jul. 2017 – present*

An application to notify users when a UofU course has a seat available (when waitlisting is disabled)

- Using an MVC design, developed the controller to poll for course availability every 30 seconds in Python3, pushing notification via SMS or email when a seat becomes available

### Personal Project: Personal Server

*Jul. 2017 – present*

Refurbishing an office machine into a personal gaming/web/experimentation server

- Stood-up private Minecraft, RuneScape, and TeamSpeak3 servers
- Configured DDNS records and enabled port forwarding, allowing external access to hosted instances
- Currently trying to teach myself Docker and Kubernetes

### Work Project (UIT): ServiceNow Visual Task Board Replacement

*Sept. 2017 – Dec. 2017*

Produced a proof-of-concept replacement for an AGILE board to organize the internship application pool

- Installed a LAMP stack on an Ubuntu 16.04 box, including an SSL certificate on the server
- Implemented LDAP authentication to verify logins and established different levels of permission in Java
- Began designing the web application using JSP and jQuery UI

### Class Project: FFMPEG

*Feb. 2017 – May 2017*

Explored a largely undocumented codebase to code a .mp4 movie with super-imposed graphics in C

- Produced an image codec, both the encoder and decoder, based on the .bmp codec
- Created a 10 second MP4 by repeatedly drawing/superimposing pixels to an existing image source's data
- Wrote a makefile to efficiently compile, clean, and execute the custom codec application

## LANGUAGES & TECHNOLOGIES

**Languages:** C/C++; C#/Java; HTML/CSS; Javascript, JSP; MatLab; MySQL; PHP; Python; R; Ruby

**Environments:** Linux (CentOS/Ubuntu/Fedora); Windows 7/8/10; MacOS

**Tools:** Adobe Suite (Dreamweaver, Illustrator, InDesign, Photoshop); Apache; Eclipse; Git; Jenkins; MatLab; MySQL Workbench; Nginx; Puppet; PuTTY/Terminal; Rails; Supervisor; Visual Studio; VMWare

To the Fall 2018 Senior Capstone Cohort:

I would like to take this opportunity to expand on what my resume could not. From my resume, it's clear that my experience and interests lay in web development. I've been creating websites since I was roughly eight years old; this has since evolved into exploring the different frameworks that are now available. Data analysis, visualization, and automation also interest me, though I'm not as well-versed on these topics as I am with web development. Nonetheless, my internship this summer allowed me to combine all these interests by automating a continuous integration testing system and producing a website that visualized the test results.

I am open to project ideas as mine are rather niche: sneaker valuation app, API for major junior hockey statistics, market board bot for video games, and so on. As a part of a team, I would like to continue to hone my web development and data-related skills; however, I am willing to work on backend tasks after having done some parallelization work through my internship. My 'go-to' languages are Python and C++, and I am perfectly comfortable with HTML/CSS and JavaScript. Writing is a passion of mine; my first bachelor's degree was in philosophy and writing. I enjoy it tremendously and will absolutely volunteer to create all documentation. A 'hall of fame' project is something I would like to work toward, but I'm content with having our project finishing in the 'top' tier.

My coursework at the University of Utah is largely complete. I will be able to contribute roughly 10-15 hours per week this semester and about 20-25 hours per week the following semester. The capstone course will most likely be the only class I take in the spring semester. Electives I have taken include Introduction to Scientific Computing, Web Software Architecture, and Database Systems—and I understand how to set-up LAMP stacks, secure websites, and implement LDAP authentication through my Campus Web Hosting job. Both my job and internship necessitated me to write scripts (Bash and Python) to automate tasks, and it's a cathartic task I really enjoy.

I work best with people who are communicative and mature enough to hold themselves accountable. In a team, I'm willing to defer to those who are more experienced than I am and cultivate an environment where each member can play to his/her strengths. If no one on the team possesses the know-how for a tool or language, I'm more than willing to be the one to put in the time and effort to learn. Above all, I value efficiency and dedication. Everything I'm asking from my team members, my team members can also expect the same from me.

I'm looking for a team that shares a similar mindset, so if you think I might be a good fit for your team, please don't hesitate to email me ([skylar.shyu@utah.edu](mailto:skylar.shyu@utah.edu)) or send me a text (801.696.9020). More information about me (courses taken, extended work experience, etc.) can be found at my website (<http://psshyyu.github.io>) and LinkedIn profile ([linkedin.com/in/skylarshyu/](https://www.linkedin.com/in/skylarshyu/)).

Sincerely,  
Skylar Shyu