

Wesley Wei

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TECHNICAL STRENGTHS

Programming Languages	C, C++, Python, Bash/Shell, C#, HTML/CSS/Javascript
Technologies & Tools	GNU/Linux, Vim, Git

EDUCATION

Tufts University, Medford, MA, *Class of 2018*

Bachelor of Science, Computer Science

Bachelor of Science, Mathematics

EXPERIENCE

Tufts University, Medford, MA

September 2015 - May 2018

Teaching Assistant - Department of Computer Science

- Answered students' questions regarding assignments and topics covered in class.
- Graded student design documents and provided feedback on document structure, as well as commenting on program design when necessary.

PROJECTS

Time Series Visualization Utility

August 2018 - September 2018

- Used C# and DevExpress to create a program to graph time series data and export charts as images with precisely controlled dimensions.
- Designed a data format based on CSV to carry both data and display metadata, including color, line weight, and line style.

PDF Report Generator

October 2018

- Automated report generation with Python, pypyodbc, and PyFPDF. Reports include numerous charts produced using Matplotlib.

Dask Cluster Setup

October 2018

- Automated setup of Linux virtual machines intended for parallel computing using Dask using shell scripts and cloud-init.

REPL

June 2018 - September 2018

Hosted on Github

- REPL is a python framework for embedding a shell into an application, providing a simple way to bind python code to textual commands.
- REPL mimics some of the conveniences of a POSIX shell, providing pipes, functions, flow control, aliases, and more, allowing developers and end users to quickly create larger programs by composing existing commands.
- REPL supports configuration through startup dotfiles.

Composte

Fall 2017

Hosted on GitHub

- Composte is written in Python and is a Linux based client-server application that facilitates real-time, collaborative editing of sheet music.
- Implemented network foundation using ZeroMQ, serverside storage using SQLite, an ad hoc shell for user interaction and scripting, and encryption stubs.
- Composte includes a PyQt GUI developed by one team member and a music backend developed by another team member, based on the music21 package.

Questionable Battleship

Summer 2017

Hosted on GitLab

- Developed simple web-based UI using Javascript and jQuery.
- Developed backend server in C++, relying on the following libraries: crossguid, doctest, json, spdlog, tclap, websocketpp, cppzmq, libicu. The server uses worker processes to manage its state and ZeroMQ for IPC.