

Costa Huang

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EDUCATION

Furman University, Greenville, SC

Fall 2013—December 2017

- Bachelor of Science
- Computer Science and Mathematics (Double Major)
- Graduation date: May 2018
- Cumulative GPA: 3.329

EXPERIENCE

Computing in Community Developer

Fall 2017 - Current

Furman University Computer Science Department, Greenville, SC

- Developing a commencement-related app that allows students to upload their name pronunciation and profile picture.
- Utilized Golang and Algolia for back-end to build interactive search
- Used Nuxt.js and Slick.js to create mobile-friendly admin panel
(See demo here <https://youtu.be/1ZRpvO15kb0>)

Teaching Assistant for Web Programming

Fall 2017

Furman University Computer Science Department, Greenville, SC

- Experimented with the newest front-end and back-end technologies with the professor
- Assisted students with (1) JavaScript related tools such as VueJs, Webpack, and Vuetify, and (2) Laravel development
- Explored AWS S3 for uploaded files storage

Furman Research Fellow

Summer 2017

Furman University Computer Science Department, Greenville, SC

- Conducted research on travel plan recommendation based on historical traffic flow data
- Published a Python server package that crawls traffic flow data (<https://github.com/streettraffic/streettraffic>)
- Set up proper unit-tests and documentation by using Sphinx (<https://streettraffic.org/docs/docindex.html>)

Vice President of Technology

Fall 2016 - Spring 2017

Furman University Investment Club, Greenville, SC

- Founded <http://portfolio.fuinvestment.com/> that shows equity curve, portfolio, and transactions history
- Used Google Script to automatically record portfolio value every day for quarterly analysis

PROJECTS

Reproduction of Deepmind's StarCraft II Research

Fall 2017

<https://costahuang.me/SC2AI/>

- Utilized Openai Gym to interact with Pysc2, the SC II Learning Environment
- Successfully incorporated Tensorforce, a reinforcement learning framework, to train SC II game agents
- Constructed maintainable and *understandable* machine learning code

Linear Programming for Optimal Scheduling

Fall 2017

https://github.com/vwxyzjn/LP_optimization_python

- Modeled the scheduling problem as a Linear Programming Problem and used Gurobipy to produce an optimal solution through the simplex method

Sentiment Analysis of Movie Review

Fall 2016

<https://costahuang.me/research/LSTM-RNN-For-Sentiment-Analysis>

- Used neural network to classify movie reviews based on sentiment
- Improved prediction accuracy on Keras's official demo code from 82.35% to 88.75%

OPEN-SOURCE CONTRIBUTION

TensorForce: A TensorFlow library for applied reinforcement learning

Fall 2017

<https://github.com/reinforceio/tensorforce>

- Added a parameter in the environment API to allow user to visualize the training within the Gym's environment
 - <https://github.com/reinforceio/tensorforce/pull/242>
 - Merged
- Fixed a bug that involves incorrect handling of multiple actions returned by the agent
 - <https://github.com/reinforceio/tensorforce/pull/244>
 - Merged

Python Extension for Visual Studio Code

Summer 2017

<https://github.com/Microsoft/vscode-python>

- Modified the underlying autocompletion module to enable variable reference on PEP 526 notation
 - <https://github.com/DonJayamanne/pythonVSCode/issues/1101>
 - Merged

Vuetify Material Component Framework for Vue.js 2

Summer 2017

<https://github.com/vuetifyjs/vuetify>

- Made starter templates for users to do rapid prototyping.
 - <https://github.com/vuetifyjs/docs/pull/181>
 - It's now live at <https://vuetifyjs.com/pre-made-themes>
 - Merged