

Charles De Vera

charlevr@uci.edu

(603) 724-9110

<https://github.com/charlevr> | charlevr.github.io

Irvine, California

Education

B.S. Computer Science

June 2020

University of California, Irvine

Relevant Coursework:

Data Structures and Algorithms, Data Management, Analysis of Algorithms,
Introduction to Artificial Intelligence, Computer Networks, Linguistic Data Science,
Probabilistic Graphical Networks, Operating Systems

Skills

Advanced: Python (scikit-learn, pandas, nltk, PyTorch, spaCy, numpy, scipy), C++, C

Comfortable: HTML/CSS, Java, Javascript

Technologies: Git, MySQL, Jupyter Notebook

Operating Systems: Windows, Linux (Ubuntu)

Work and Research Experience

Undergraduate Researcher, Computation of Language Lab, UCI

June 2019 - present

- Used python libraries such as pandas, nltk, spaCy, PyTorch, and scikit-learn to clean, process, and model text data for detecting an imitation of an author
- Applied machine learning techniques such as support vector machines and Long Short Term Memory neural networks as well as natural language processing representations such as word2vec and GloVe on large text datasets to detect imitations
- Learned experimental design with concepts such as setting a baseline, using precision, recall, and accuracy, and cross validation in order to test a hypothesis

Computer Science Coach, Codespeak Labs

October 2019 - Present

- Mentored young students from kindergarten through 6th grade in teaching and completing coding-related projects in languages such as Python and Scratch
- Helped coordinate and teach lessons on computer programming alongside a team of passionate coaches and teachers in order to introduce computer science to a younger audience

Undergraduate Researcher, Learning and Decision Neuroscience Lab, UCI Oct. 2019 - Present

- Verified the completeness and correctness of a reinforcement learning model and a statistical graphical model of a human decision making on various reinforcement schedules

Projects

Simple Search Engine

March 2019

- Worked with a partner to create a simple search engine on pages in the School of Information and Computer Sciences domain in Python that used cosine similarity ranked retrieval
- Uses an SQLite DB to index and retrieve data on the webpages

Sudoku Puzzle Solver

March 2019

- Implemented a simple and fast C++ program which takes a sudoku puzzle as a text file and computes a complete and correct solution
- Uses basic artificial intelligence techniques such as forward checking and backtracking to solve a constraint satisfaction problem in a reasonable amount of time

League of Legends Twitter Bot

June 2017

- Retrieved a user's "death" count every game using Riot's League of Legends API using Python
- Used the Twitter API to post the user's death count for every game they played