Daniel Firebanks-Quevedo

thefirebanks | dfireban@oberlin.edu | 202-294-9862 | firebanks

EDUCATION

B.A IN COMPUTER SCIENCE
Oberlin College
Expected May 2020 | Oberlin, OH
Minor in Mathematics
GPA: 3.54/ 4.0

COMPUTER SCIENCE STUDY ABROAD
University of Technology and Economics (BME)
Jan-May 2019 | Budapest, Hungary

INTERNATIONAL BACCALAUREATE
United World College USA
May 2016 | Montezuma, NM

SKILLS

PROGRAMMING
Comfortable:
Python • Java • C++ • Javascript • Scheme • LaTeX

Familiar:
C • C# • R • Shell • SQL

LANGUAGES
Spanish (Native) • English (Proficient) • French • Hungarian (Conversational)

COURSEWORK

Advanced Algorithms
Economics and Computation
Computational Biology and Medicine
Data Science
Complex Networks
Linear Algebra
Multivariable Calculus
Systems Programming

INTERESTS

Jazz/Classical Guitar • Percussion • Stand-up comedy • Photography • Close-up Magic • Latin and Ballroom Dancing • Cognitive Neuroscience • Cooking • Behavioral/Development Economics • Outdoor recreation

EXPERIENCE

ECONOMIC ANALYSIS (DATA SCIENCE) INTERN Jun 2018 - Aug 2018
Public Company Accounting Oversight Board

- Trained a Conditional Random Fields (CRF) machine learning model to identify structure and extract text from accounting statements.
- Built tools that automated cleaning, merging, and query-based retrieval of financial/accounting data for text analysis and risk prediction.
- Wrote a parser in C# to extract text while maintaining logical structure from non-standardized HTML documents, increasing accuracy from 47% to 78%.

COMPUTER SCIENCE TEACHING ASSISTANT Aug 2017 - Dec 2018
Oberlin College

- Engaged in weekly lab tutoring sessions for groups of 20-25 students, by assisting them in developing software design proficiency, identifying/resolving bugs, and peer programming.
- Classes: *Introduction to CS*, *Data Structures and Systems Programming*.

TECHNOLOGY CONSULTANT Jan 2017 - Dec 2018
Oberlin College

- Provided first-level client services/support to students, faculty and staff by diagnosing software issues and formulating solutions to them.

RESEARCH

SELF-INTERESTED MULTI-AGENT REASONING IN COMPLEX SYSTEMS
Research Assistant, Oberlin College Aug 2017 – Dec 2018

- Studied multi-agent systems and reinforcement learning algorithms applied to StarCraft2 (SC2) with professor Adam Eck.
- Built basic bots for the test environments provided by DeepMind.
- Created a framework to build intelligent bots through the Python (PySC2) and Java SC2 APIs that uses the Raw Interface of the game.

ENSEMBLE LEARNING FOR OFFENSIVE LANGUAGE DETECTION IN TWEETS
Lead Researcher, Oberlin College Aug 2017 – Dec 2018

- Built an ensemble learning model to classify hate-speech and offensive language in tweets, composed of:
  - A Bayesian structure, an LSTM Recurrent Neural Network and a Voting Classifier module based on word embeddings and a lexicon frequency score.
- Designed and implemented a weighted voting system for the outcomes of the methods mentioned above.
- Wrote a curricular unit in algorithmic bias for the Machine Learning class.

SENTIMENT ANALYSIS OF VIRAL TWEETS
Summer Researcher, Oberlin College Jun 2017 – Jul 2017

- Analyzed 300,000 tweets from a large group of scientists for changes in sentiment and its possible effects on virality.
- Used Python and R to apply machine learning (Naive Bayes, SVM, Max. Ent) and natural language processing techniques.

ACTIVITIES AND LEADERSHIP

Nov 2017 - Present	Computer Science Majors Committee (Member)
Aug 2016 - Present	International Student Organization (President)