Ayush Sangari

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ACADEMIC

Vanderbilt University (Nashville, TN)

M.S. COMPUTER SCIENCE, 3.97 GPA 1/2019 – 5/2020

B.S. COMPUTER SCIENCE, 3.98 GPA, *Summa Cum Laude* 8/2016 – 5/2020

Recipient of the Cornelius Vanderbilt Scholarship (Full-Tuition Scholarship Awarded to <1% of All Applicants)

PROGRAMMING EXPERIENCE

Relevant Coursework

- Advanced Artificial Intelligence, Advanced Machine Learning, Deep Learning in Medical Image Computation, Artificial Intelligence, Introduction to Deep Learning, Big Data, Networks, Operating Systems, Programming Languages, Algorithms, Intermediate Software Design, Data Structures and Programming, Digital Logic

Skills:

Proficient: C++, Java | Prior Experience: Python, Racket, Flask, Matlab, Javascript, MongoDB, TensorFlow

Projects:

Page Rank

- Used Python and Spark to implement a version of Google's PageRank algorithm, which is used to rank web pages in search results by calculating each web page's relative importance.

Othello Solver

- Created adversarial agents that compete against each other in the classic board game Othello using the minimax algorithm with alpha/beta pruning in Racket

Diversify

- Created a financial portfolio diversification tool in Python that implements a quadratic programming variant of Markowitz's critical line algorithm using end-of-day trading data from the past five years to recommend the optimal distribution of capital that should be invested into each stock within a portfolio

WORK EXPERIENCE

Facebook (Software Engineering Intern, Ads Infrastructure Team) May – August 2019

- Built an internal debugging tool in C++ that traces the retrieval process of any Ad for a given request in order to help employees understand exactly how an Ad is or is not being retrieved by the request.
- Extended logging in the retrieval process to include information and statistics about the various queries that were being created throughout the initial stages of the retrieval pipeline.

FICO (Machine Learning Intern, AI Research Group) May – August 2018

- Developed a speaker identification system (along with a website) powered by a custom-built 2D Convolutional Neural Network using Python, Flask, HTML, Javascript, MongoDB, and TensorFlow. Other features include real-time speaker detection, audio visualization, speech-to-text transcription, sentiment analysis, and noise-reduction.

RESEARCH

Artificial Intelligence Research August 2018 – Present

- Under the guidance of Professor Daniel Fabbri (Vanderbilt), I created a variety of machine learning models that can predict a patient's chance of experience delirium in the ICU with high degrees of accuracy based upon collected light and sound data from ICU room sensors along with other health markers.

AWARDS

Dean's Award for Outstanding Scholarship 2020

National Merit Scholarship Winner 2016

American Mathematical Invitational Qualifier 2013, 2014, 2015