Evan Costa

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Education

Northwestern University, Evanston, IL Expected Graduation: June 2022
Bachelor of Science, Major in Computer Science in McCormick School of Engineering
Bachelor of Arts, Minor in Cognitive Science in Weinberg School of Arts and Sciences
Cumulative GPA: 3.2/4.0 **Languages:** English, Spanish
Skills: Python, C++, Java, Racket (Dialect of Lisp), MATLAB, Swift UI, AutoCAD
Relevant Coursework: Machine Learning on Coursera, Data Structures and Algorithms, Discrete Mathematics, Linear Algebra, Computer Engineering, Fundamentals of Computer Programming I & II

Projects

Hangman- Neural Network, *Individual Project* Dec. 2019- Present
- Implemented a Long-Term Short-Term Memory Recurrent Neural Network to guess letters in Hangman using Python libraries NumPy and CNTK
- Developed a graphical user interface to in Tkinter to allow AI-human interaction
- AI uses memory and pattern recognition to win 58% of games played

Automotive Signaling Simulation, *Class Project* Sept. 2019- Dec. 2019
- Programmed a modular framework for simulating signal processing of a car deploying object-oriented programming in C++
- Parsed text files to store and handle data based on commands a real-world car would give
- Implemented error checking and data transferring functions to signal between devices within cars

PDF to Text Parsing Tool, *Group Project* March 2019- June 2019
- Cooperated with a team to engineer an application utilizing Apache software with Javafx in Java to turn pdf documents into text documents to be parsed and handled
- Debugged elemental portions of program to construct a workable final product
- Helped users better understand badly scanned documents such as textbooks or other reading materials a typical college student might come across

Research Experience

Northwestern University, Department of Psychology, *Research Assistant* November 2019- Present
Social Cognition and Intergroup Processes Laboratory
- Designed and programmed a social media interface in HTML5 to create profiles to research cognition and introversion/extroversion personality types
- Currently working on scaling number of sample profiles and assisting with Qualtrics for survey implementations to expedite data collection

University of Miami, Miller School of Medicine, *Research Intern* June 2018-Sept. 2018
Induced Pluripotent Stem Cell Laboratory
- Produced DNA samples introduce to stem cells for Autism Spectrum Disorder research
- Assisted lab technicians and university professors with data analysis and activities addressing disparities in genomic medicine gaining experience working with plasmids, iPSC's, codon data, enzymes, and electrophoretic gels. Presented findings to 14 faculty mentors and 50 other researchers

Activities

Institute of Electrical and Electronics Engineers (IEEE), *Machine Learning Group*, Member Sept. 2019-Present
- Spearheaded a framework to identify Humpback whale tails leveraging k-nearest-neighbors' algorithm
- Self-learned cv2 libraries in a team setting using python and brought up identification rate of whale tails to 65%, aiding whale conservation efforts providing insight about whale pod dynamics and movements

Sigma Nu Fraternity, *Gamma Beta Chapter*, Treasurer February 2020- March 2021
- Allocated and itemized over $150,000 in budget for 2020-2021 fiscal year
- Collaborated with past treasurer to restructure spreadsheets on Microsoft Excel and reduce debt to alumni sponsors while maintaining full ability of fraternity operations and its 90 active members

Northwestern Dance Marathon, *Technology and Analytics Committee*, Member November 2019- March 2020
- Developed bathroom portion of NUDM app launched with SwiftUI for Northwestern
- Provided information to over 200 dancers and administrators about baeroom availability and wait times