Chinmay Tyagi

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EDUCATION

University of California, Irvine Sept 2017 – June 2021
BS in Computer Science

Relevant Coursework

CS 178: Machine Learning
CS 116: Computer Vision
CS 163: Graph Algorithms
CS 131: Parallel and Distributed Computing
CS 53: System Design and Operating Systems
Math 130 Series: Stochastic Processes

Activities: Her Computing (Board Member)

WORK EXPERIENCE

Software Engineering Intern @ Intel, Visual Cloud – Hillsboro, OR June 2020 – Dec 2020

- Developed a solution for volumetric VOD streaming, resulting in 31% bandwidth savings
- My work was published in the 2021 International Broadcasting Conference
- Created a novel framework for adaptive bitrate solution of 3D video (patent under review)
- Whitepaper: www.intel.com/content/dam/www/public/us/en/documents/white-papers/volumetric-vod-white-paper.pdf

Teaching Assistant, Discrete Math @ UCI – Irvine, CA Mar 2020 – Dec 2020

- Taught course material in weekly discussions and independently held office hours

Software Engineering Intern @ Ascendo AI – San Francisco, CA June 2019 – Aug 2019

- Designed and built an Android app for customers to access core services of the company
- Implemented two-factor authentication and integrated app with ML-based backend

Summer Analyst @ Science Philanthropy Alliance – Palo Alto, CA June 2018 – Sept 2018

- Managed a Salesforce CRM for a $30 million portfolio
- Tracked client analytics using Tableau; Analyzed and presented findings weekly to increase donation rate

RESEARCH

UC Irvine Intelligent Dynamics Lab Dec 2020 – Current

- Currently developing NXDO - a deep learning algorithm for solving multiplayer zero-sum games
- NXDO outperforms current state-of-art algorithms (Deepmind's PSRO) in 3-5 player no-limit poker

UC Irvine Center for Machine Learning Oct 2018 – March 2019

- Assisted Prof. Pierre Baldi in research on predicting human behavior based on brain activity
- Transformed a dataset of brain signals into a time series regression model via Fourier analysis

Stanford Artificial Intelligence Lab June 2017 – Aug 2017

- Created a model to predict behavior of collisions between rigid-body systems
- My work was used in a paper published in the 2018 International Symposium on Experimental Robotics
- https://link.springer.com/chapter/10.1007/978-3-030-33950-0_37

SKILLS & PROJECTS

Programming Languages: Python, C++/C/C#, R, Java, JavaScript
Other: Linux, Docker, AWS, Unity, Tableau, Latex, Pytorch

Artificial Art with Neural Style Transfer

- Built a convolutional neural network using Tensorflow to paint any image into artwork
- Ex: "Picasso-ify" a selfie of myself by transferring the style of one of his paintings

Trading Algorithm using Mean Reversion

- Developed an algorithm which determines stocks to short based on premarket activity
- Program scrapes indicators and feeds data into random forest classifier with a win/loss ratio of 2 to 1

Checkers AI

- Wrote an algorithm to play checkers against CPUs of various difficulty levels
- Utilized alpha-beta pruning to look ahead for the best possible move
- Created several heuristic functions to evaluate the score of a player, and to calculate the best move

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Extracurriculars: Eagle Scout, Club Soccer
Status: U.S. Citizen