

# Chinmay Tyagi

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## EDUCATION

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### University of California, Irvine

Sept 2017 – June 2021

BS in Computer Science

#### Relevant Coursework

CS 178: Machine Learning

CS 116: Computer Vision

CS 53: System Design and Operating Systems

Activities: Hedge Fund Society (Board Member), Sigma Pi Fraternity

CS 161: Analysis of Algorithms

Math 130 Series: Stochastic Processes

Math 13: Abstract Mathematics

## WORK EXPERIENCE

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### Software Engineering Intern @ Intel, Visual Cloud - Hillsboro

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

**Whitepaper:** [www.intel.com/content/dam/www/public/us/en/documents/white-papers/volumetric-vod-white-paper.pdf](http://www.intel.com/content/dam/www/public/us/en/documents/white-papers/volumetric-vod-white-paper.pdf)

Filed innovation paper for adaptive bitrate streaming on 3D data (patent under review)

### Teaching Assistant, Discrete Math @ UCI - Irvine

Mar 2020 – Dec 2020

Assisted in teaching the course, and independently held weekly office hours

### Software Engineering Intern @ Ascendo AI - San Francisco

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

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

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### 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](https://link.springer.com/chapter/10.1007/978-3-030-33950-0_37)

## SKILLS & PROJECTS

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**Programming Languages:** Python, C/C++, C#, R, Java, JavaScript

**Other:** Linux, Docker, AWS, Unity, Tableau, Latex

### 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

### Web Search Engine

Implemented a search engine for school's CS department webpages

Sorted tokenized webpages based on query similarity, utilizing a vector model

### Checkers AI

Wrote an algorithm to play checkers against CPUs of various difficulty levels

Implemented 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, Poker

**Status:** U.S. Citizen