

Waylon Chang

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OBJECTIVE

Highly creative, team oriented problem solver and culturally diverse leader with Bachelor's degree in Machine Learning and Economics. Offering expert data analyzing and modelling techniques, and fluent multicultural communication skills. U.S. citizen fluent in English and Mandarin Chinese.

EDUCATION

University of California, San Diego	CUM GPA: 3.25
B.S. Cognitive Science Specialization in Machine Learning and Neural Computation	Sep 2016 - Dec 2020
B.A. Economics	Sep 2016 - Dec 2020
Music Minor	

EXPERIENCE AND RELATED PROJECTS

COVID19 Spread in San Diego	San Diego, CA
<i>Data Analysis Project</i>	Summer 2020
<ul style="list-style-type: none">Conducted data mining, cleaning, and transformation onto public COVID19 datasets to extract meaningful informationConducted data visualization on COVID19 trends in San Diego and its comparisons to adjacent Californian CitiesImplemented hypothesis testing to analyze the effect of reopening the economy on COVID19 cases in San DiegoFound increase of cases after reopening the economy is statistically significant to the cases before with T-score of 13.2	

Russian Twitter Bot Influence on the United States	San Diego, CA
<i>Data Science/Analysis Project</i>	Fall 2019
<ul style="list-style-type: none">Conducted data wrangling, cleaning, merging, and visualization on Russian Tweet Dataset with Pandas and MatplotlibImplemented Find-Leaning sentiment ML algorithm with SGDClassifier and obtained 93% test accuracyConducted word frequency analysis and correlation analysis on Russian Tweet Bot Dataset's leftist and rightist accountsConcluded that it is statistically significant that rightist accounts gather more followers than leftist accountsSelected to be published in the Journal of Statistics Education by Bradley Voytek as distinguished research	

Machine Learning Engineering Intern	Nantau, Taiwan
<i>Advanced Semiconductor Engineering, Inc</i>	Summer 2018
<ul style="list-style-type: none">Implemented Deep Learning algorithm DetectNet that identified contaminated semiconductors to reduce input efficiencyDesigned convolutional neural network DetectNet that identified and recognized 14 categories of semiconductor defectionIncreased processing power by optimizing parameters and lowered testing loss by 30% with Google's Inception model	

Research Intern	Nantau, Taiwan
<i>Advanced Semiconductor Engineering, Inc</i>	Summer 2017
<ul style="list-style-type: none">Researched Generative Adversarial Networks' potential utilization in data generation and image enhancementGenerated all 14 usable defected semiconductor pad categories through GAN with DIGITS in CaffeImplemented autoencoding structure to GAN to modify generated images in desired features with vector z	

Research Intern	New York City, New York
<i>Columbia University in the City of New York</i>	Summer 2015, Summer 2016
<ul style="list-style-type: none">Optimized Vehicular and Facial Recognition algorithms for better understanding of in depth research projectsTrained and tested convolutional neural network on CalTech101 vehicle dataset and achieved testing loss of 0.002	

LEADERSHIP AND ACTIVITIES

UCSD Cottrell Lab	San Diego, CA
<i>Member</i>	Jun 2016-June 2018
<ul style="list-style-type: none">Attended weekly machine learning meetings and participated in presentations on machine learning related research	
Musician's Club	San Diego, CA
<i>Vice President of Finance</i>	Sep 2017-Jun 2018
<ul style="list-style-type: none">Created, organized, and fundraised budget for quarterly expenses for open mics, fundraisers, and community servicesRaised over 5000 dollars from various on campus associations for open mic events, yearly shows, and weekly meetings	

SKILLS

Coding Languages: Python, SQL, R, HTML, CSS, Tableau, Caffe, Java, Tensorflow 2.0, Stata, Matlab, Ableton, Linux
Coding Libraries/Packages: Pandas, Regex, Matplotlib, Scipy, PyTorch, Scikit Learn, SQLite3, PostgreSQL, MySQL