

Avijit Singh Nalwa

nalwa.avijit@gmail.com | 310-562-7673 | 527 Midvale, Los Angeles, CA

EDUCATION

University of California, Los Angeles (UCLA) – Department of Mathematics **Los Angeles, California**
Bachelor of Science in Financial Actuarial Math: GPA 3.72/4.0 *April 2021*
▪ Honors College, Dean's Honors List: Spring 2020, Winter 2020, Fall 2018, Spring 2018, Winter 2017
▪ Coursework: Linear Algebra, Real Analysis, Probability, Statistics, Financial Mathematics, Interest, Microeconomics

MACHINE LEARNING PROJECTS

Movie Recommendation System - [GitHub](#) **Los Angeles, California**
Collaborative Filtering via Singular Value Decomposition & Stochastic Gradient Descent *March 2020*
▪ Created a system in Python that uses machine learning to provide personalized recommendations to users based on their ratings of a few movies from the MovieLens dataset; Optimal recommendations using a low dimensional approximation.

Number Recognition WebApp - [Link](#) **Los Angeles, California**
Convolutional Neural Networks & Data Augmentation in TensorFlow & Flask Framework *April 2020*
▪ Created a well generalizing deep learning model trained on the MNIST dataset with image augmentation in Python.
▪ Built and deployed a Flask WebApp that correctly and quickly classifies hand drawn input with significant distortions.
▪ Used Heroku for deployment, HTML, CSS, Javascript, Ajax, Flask & TensorFlow (Python) for development.

Predicting Wine Quality - [GitHub](#) **Los Angeles, California**
Stacked Ensemble: Deep Neural Network Meta-trainer with 3 base models in Python & Data Visualization *May 2020*
▪ Created 3 base models for the ensemble: Gradient Boosting Machine, Random Forest, Deep Neural Network.
▪ Achieved 90% White Wine, 88% Red Wine exact quality rating prediction accuracy. Used h2o.ai, Pandas, Seaborn.

WORK EXPERIENCE

Siegel+Gale **Los Angeles, California**
Insights Intern, Research & Insights *June – August 2019*
▪ Created an end to end segmentation analysis in R using clustering & improved runtime by 50% using parallel computing.
▪ Discovered and visualized employee brand engagement profiles for a global Fortune 500 company using the analysis.
▪ Created Natural Language Processing and Topic Modelling tools in R that mined themes from qualitative data.
▪ Designed a Brand Equity Survey and collected strategic research for a leading global payments technology company.
▪ Conducted a Research Audit to build a positioning strategy for a leading semiconductor technology company.
▪ Analyzed data and generated findings for brand equity, name validation, brand perception, and usability testing.
▪ Created 2 research driven Employee Value Propositions for Siegel+Gale by designing and conducting research interviews.
▪ Identified key pain points in the onboarding process through qualitative research. Built a consumer typing tool in R.

Green Hasson Janks **Los Angeles, California**
Technology Solutions Intern, Tax & Audit *April – June 2019*
▪ Analysis: Improved the efficiency of a custom automated billing solution by redesigning the excel data-table structure & reducing computational complexity. Resulted in reduced runtime, product creation, and better department productivity.
▪ Consulting: Designed the product & revenue model for a business facing automation tax product that optimizes deductions.
▪ Increased the runtime efficiency of the product by simplifying formulas, restructuring data tables, and reducing calculations.

The Princeton Review **New Delhi, India**
Consulting Intern, Revenue & Partnerships *July – August 2018*
▪ Data Analysis: Optimized marketing strategy and operations efficiency by creating a statistical analysis of data by region.
▪ Market Research: Provided differentiation and an understanding of market segmentation through competitor analysis.
▪ Product Development: Created a new career counselling product by analyzing employment growth, skill deficit, and median pay labor statistics across highly targeted destinations. Identified high impact partnerships for strategic growth.

LEADERSHIP & EXTRACURRICULARS

UCLA Student Government **Los Angeles, California**
Director: Technology Impact, Outreach, Office of the Internal Vice President *January 2019 – Present*
▪ Led a team of developers and designers that created websites that improved funding accessibility for student-orgs, increased financial transparency through interactive data visualizations, and built an advocacy volunteering search portal (150+ orgs)

Computer Science **Los Angeles, California**
Algorithms, Data Structures, Clustering, Version Control *August 2019 – Present*
▪ Audited courses on asymptotic analysis, divide & conquer algorithms, stacks, priority queues, graphs, trees, hash tables.
▪ Languages: Python, R, SQL, C++, HTML, CSS, Ruby on Rails; VCS: Git.

Brown University Leadership Institute, Scholar. CERN Particle Physics, Research Trainee. Wharton, Entrepreneurship. IBM, Python. Google, Digital Marketing. Interests: Consulting, Data Science, Machine Learning, Actuary, Finance, Music, Table Tennis, Puns.