### **EDUCATION**

# University of California, Los Angeles (UCLA) – Department of Mathematics Bachelor of Science in Financial Actuarial Math: GPA 3.72/4.0

Los Angeles, California

April 2021

- Honors College, Dean's Honors List: Spring 2020, Winter 2020, Fall 2018, Spring 2018, Winter 2017
- UD 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 h20.ai, Pandas, Seaborn.

### **WORK EXPERIENCE**

**Root Insurance** 

Columbus, Ohio

# Actuarial Intern, Actuarial Pricing: Tooling

June – September 2020

- Created a family of analyses within R that efficiently compute a metric tracking risk levels based on actuarial rating factors.
- Improved runtime efficiency by 75% through parallel computing. Built many visualization and automated analysis methods.
- Used RODBC, SQL, and AWS S3 with R to automatically query large datasets and quickly analyze using Data.table, Plotly.

# 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.
- Built Natural Language Processing and Topic Modelling tools in R that discovered themes from qualitative interviews.
- Designed qualitative questions, a brand equity survey and collected strategic research from stakeholder interviews for VISA.
- Identified new insights using existing data to build a positioning strategy for Lam Research by conducting a research audit.
  Built a user typing tool within R for name validation and brand perception research for NBC Universal (Peacock streaming).
- Created 2 research driven Employee Value Propositions for Siegel+Gale; Usability interviews for Wells Fargo Brand Portal.

#### **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.

# 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 - 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.