ABHISHEK SHARMA

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EDUCATION

University of California, Berkeley *August 2017 - May 2021*
B.S. Electrical Engineering & Computer Science, Certificate of Entrepreneurship & Technology Berkeley, CA

Relevant Coursework *Algorithms — Artificial Intelligence — Data Structures — Data Science — Databases — Deep Reinforcement Learning — Designing Neural Networks — Discrete Math & Probability Theory — Linear Algebra — Machine Learning — Machine Structures — Multivariable Calculus — Operating Systems — Probability for Data Science — Statistical Programming in R*

PROFESSIONAL EXPERIENCE

Amazon May 2019 - August 2019
Software Development Engineer Intern *Seattle, WA*

· Developed a machine learning aided scheme for scheduling a large volume of concurrent API calls to backend services.
· Implemented a Remote Procedure Call (RPC) service in Java to search and deliver indexed healthcare data for Amazon retail.

Google January 2019 - April 2019
Machine Learning & Data Analytics Fellow *Mountain View, CA*

· Derived novel 'explosiveness' metric for ranking teams for Google Cloud's inaugural March Madness Analytics Campaign. (Python, SQL)
· Architected custom Deep Neural Network regression design to predict statistics in college basketball tournament games with 71% accuracy.
· Starred in 2 documentaries and 2 television commercials with live predictions at half-time of Championship Game. (g.co/marchmadness)

Oracle July 2018 - November 2018
Data Analytics Intern *San Francisco, CA*

· Optimized accuracy of solar energy output predictions for ∼16 million customers by validating deep neural-network based approach.
· Owned and oversaw production of a large-scale machine learning feature for high-profile utilities customers such as PG&E.
· Reduced energy estimation error and runtime by 80% by migrating feature implementation from online service API to deep learning models.

International Computer Science Institute May 2018 - August 2018
Data Scientist Intern *Berkeley, CA*

· Contributed to improving AudioSet sound recognition deep learning project by building AudioNet, a fully annotated audio/video dataset.
· Developed shell scripts in Bash and hearing-screen tool (in Javascript and Python) to automate data cleaning and hire project members.
· Automated audio/video data annotation process by building annotation pipeline software and maintaining dev tools on linux AWS server.

NASA August 2016 - December 2016
Software Engineer Intern *Mountain View, CA*

· Cut average usage time by 50% for NASA's geographic Compurer Vision tool after performing extensive User Experience (UX) research.
· Utilized Python Django framework for full-stack web development, and prototyped suggestions as mockups before implementation phase.

ACTIVITIES & LEADERSHIP

Intel February 2019 - Present
Artificial Intelligence Student Ambassador *Berkeley, CA*

· Selected for graduate-level fellowship; conducting independent publication-track Machine Learning research with Intel computing resources.
· Investigated a new method of learning to rank for information retrieval by applying a deep reinforcement learning approach.
· Implemented Deep Q-Network using Pytorch and achieved state-of-the-art accuracy on Microsoft's LETOR dataset.

UC Berkeley Division of Data Sciences September 2019 - Present
Developer *Berkeley, CA*

· Contributed to otter-grader, a local Python notebook autograding library to be used by University Data Science programs worldwide.

Convergent UC Berkeley September 2018 - Present
Co-Founder, Director of Engineering — www.calconvergent.com *Berkeley, CA*

· Built and update club website using Node.js, HTML, CSS and maintain AWS server.
· Wrote an unsupervised learning algorithm (k-means clustering) to automate creation of diverse teams within product development club.

Innovate Berkeley (Incubator Program) September 2017 - October 2017
Tech Lead — CalSpot *Berkeley, CA*

· Defined concept and requirements for a software product that would reduce overcrowding at popular UC Berkeley campus locations.
· Designed neural network regression model for online learning which can forecast crowdedness at dining halls and libraries.

PROJECTS

CS Course Recommender - Online Collaborative Filter July 2019 - August 2019
Recommendation Engine for College Students — www.courserec.com *Berkeley, CA*

· Building a correlation-based recommendation system with Python SciPy stack to suggest Computer Science courses for students at Berkeley.
· Implemented front-end using HTML and CSS. Planning to rollout additional career advice, study plans, and interview preparation features.

Stocksify - AI Stock Advisor May 2018 - Aug 2018
Machine Learning for Stock Prediction *Fremont, CA*

· Implemented an ensemble of machine learning models for stock prediction in Python, in the form of a lightweight web application.
· Current models in use: Kernelized Regression, LSTM Neural Network for time series analysis / Logistic Regression for interpreting news.

AWARDS & HONORS

Academic Awards National Merit Scholar, PTSA Scholarship Winner, 1st Place at DECA Marketing Case Study State Competition.
Community Awards Eagle Scout, President's Gold Volunteer Service Award (awarded thrice for 1000+ service hours across 3 years).