Divit Rawal

divit.rawal@berkeley.edu | divitr.github.io | divitr | /in/divit-rawal

Education

University of California, Berkeley Aug. 2023 – Present
Physics, Mathematics, Electrical Engineering & Computer Science (Minor) *Berkeley, CA*

- Relevant Coursework: Data Structures, Deep Learning for Visual Data, Advanced Programming in R, Mathematical Physics, Computer Programs, Communication Networks, Information Devices and Systems, PCB Engineering
- Launchpad AI/ML, Hands-On PCB Engineering Course Staff

Northwood High School Aug. 2019 – Jun. 2023
High School Diploma *Irvine, CA*

- Relevant Coursework: Calculus I (A), Calculus II (A), AP Biology (5), AP Computer Science A (5), AP Chemistry (5), AP Statistics (5), AP Physics I (5), AP US Government and Politics (5)
- National Merit Scholarship Finalist

Experience

Kairos Academics Apr. 2023 – Present
Tutor *Remote*

- Provide one-on-one tutoring to high school students in math and science
- Develop personalized lesson plans and study strategies to address individual student needs and learning styles
- Monitor student progress and adapt teaching methods to ensure comprehension and academic growth

Amazon Aug. 2023 – Dec. 2023
OpenSearch Contributor *Remote*

- Selected as member of 2023 OpenSearch Contributor Initiative
- Contributed to the ml-commons repository by developing machine learning algorithms, unit tests, and plugins
- Collaborated with students, industry professionals, and Amazon Machine Learning Engineers worldwide

UC Irvine, Department of Physics & Astronomy Feb. 2022 – Jul. 2023
Researcher *Irvine, CA*

- Developed, trained, and tested TensorFlow/Keras deep learning models to address data scarcity issues in high momentum collision analysis with >90% accuracy
- Simulated particle collisions using MadGraph, Pythia8, Delphes, and ROOT and designed/implemented reconstruction algorithms in C++ and Python to predict particle mass with <2% error

SimpleMath Foundation Aug. 2021 – Jun. 2023
Head of Tutoring *Irvine, CA*

- Led a team of 11 tutors to provide academic support to children from underserved communities, helping improve their understanding and confidence in math
- Personally tutored 2 students each week, tailoring instruction to meet individual needs and learning styles
- Created and published a series of engaging and informative YouTube videos on key math concepts

Certifications

Machine Learning Professional Certification *IBM*

- Studied data analysis, supervised, unsupervised, and semi-supervised learning with a focus on deep learning
- Completed capstone project using machine learning to build recommender systems

Stanford/UBC Game Theory Certification *Stanford University*

- Studied multi and single player games, using mathematical modeling to optimize outcomes

Skills

Languages: Python, R, C, C++, Java, HTML/CSS, JavaScript, SQL
Frameworks: ROOT, Flutter, Flask, TensorFlow/Keras, PyTorch, Mockito
Libraries: Pandas, NumPy, Matplotlib, SciKit-Learn, BeautifulSoup