

MRIDUL SARKAR

Adaptable Applied Mathematician



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EDUCATION

Mathematics and Scientific Computation B.a.Sc

[University of California-Davis](#)

📅 09/2017 - Ongoing

- Education Minor

WORK EXPERIENCE

CEO

[quantumRatio](#)

- Consulting contract with Germany based company evaluated over 7 figures
- Novel Emotional Recognition library for Scipy
- Novel Quantum Computing library for Qsharp

🔗 <https://quantumratio.github.io/>

Computer Systems Co-Lead

[Space and Satellite Systems](#)

📅 11/2018 - Ongoing 📍 Davis, CA

DevOps, Team Management, and Business Development for 1st UC Davis CubeSat

- Increase in computational efficiency and implemented plug and play algorithm design as former Computer Systems Lead
- Developed software for PID, TRIAD, BDOT, Reaction Wheels
- Guided by and collaborating with industry professionals at JPL and NASA

🔗 <https://www.ucdspaceandsatellitesystems.com/>

Research Assistant

[Center for Neuroscience](#)

📅 12/2019 - 04/2020 📍 Davis, CA

Dr. Rishidev Chaudhuri's research group

- Sparse PCA program to analyze data from a brain and form interpretations about cognition
- Results mirrored Neuralink's demonstration with pigs

🔗 <https://github.com/mridulsar/PCA>

Mentee

[VMware](#)

📅 01/2019 - 09/2019 📍 Remote

Developed proprietary preprocessing algorithm for large text databases

- Developed algorithm to find if words are understandable
- Developed skills with spacy, NLTK, BERT, and SQUAD2.0

VOUNTEER WORK

CalTeach Intern

[UC Davis Department of Mathematics](#)

Led and assisted in college level Calculus classes of 30.

CalTeach Intern

[NP3 Charter High School](#)

Led and assisted in calculus and geometry classes of 30.

CalTeach Intern

[Marguerite Montgomery Elementary school](#)

Assisted in 3rd grade math classes.

CERTIFICATES

Machine Learning

Stanford University

Quantum Computing

St. Petersburg University

RESEARCH/PROJECTS

Quantum Neural Networks

R&D for quantum neural networks

- 10% increase in accuracy in XanaduAI's Pennylane quantum convolutional neural network, committed changes to their public repo

🔗 <https://github.com/XanaduAI/qml/pull/96>

SKILLS

Python

Matlab

Machine Learning

Tensor

Deep Learning

C

Q#

Numpy

Scipy

Data Mining

Git

Numerical Analysis

Real Analysis

AWS

PASSIONS



Athletics

High School Wrestling Conference Champion.

High School Varsity Rugby, Team Captain.
Men's UC Davis Rugby Team.



Ninja Training

1st Degree Black Belt in Tae Kwon Do.
White Belt in BJJ.



Meditation & Yoga

Practicing for 4 years.



Reading & Writing

I enjoy poetry, blogging, and reading.



Media

I built my own PC, love gaming, movies, and music. I enjoy stories told through media.