Gaurav Rao

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Previous Employment

Amazon **Seattle, WA**
Software Development Engineering Intern *June 2019–August 2019*

- Created Java Services and a Javascript frontend for internal stakeholder dashboard
- Wrote debug information from bayesian logistic regression model to Athena database using AWS Firehose

Laserlike Inc **Mountain View, CA**
Engineering Intern *June 2018–August 2018*

- Used Golang to predict user interests and schedule notifications for reengagement and improve daily active user rate
- Deployed and orchestrated microservices and reverse proxy endpoints using kubernetes/docker
- Created interactive online debug tools to benchmark image suggestions and real time notification sending using golang.
- Used hyperbolic geometry for word/concept embeddings to improve machine learning article suggestion model
- Improved word disambiguation system for processing internet articles

Berkeley Institute of Data Science **Berkeley, CA**
Undergraduate Researcher *2017*

- Worked under an ecology researcher using predictive models such as reccurent neural networks and ridge regression to analyze soil greenhouse gas emissions in puerto rical soil.

Student Learning Center **Berkeley, CA**
Math Tutor *2017-2018*

- Improved student learning outcomes by tutoring Berkeley students calculus, linear algebra, and discrete mathematics.

Education

Academic Qualifications

University of California, Berkeley **Berkeley, CA**
BA Computer Science and Mathematics, 4.0 CS GPA 30 Putnam Score *2017–2021*
Coursework: Probability Theory and Random Processes, Data Structures, Machine Structures, Algorithms, Real Analysis, Abstract Algebra, Algebraic Geometry

Machine Learning @ Berkeley **Berkeley, CA**
New Member Education Program *2019*
Topics: Classical Techniques (SVMs, Kernals, Random Forests, Boosting), CNNs, RNNs, GANs, Reinforcement Learning

Projects

- **Calhacks:** *'Machine learning choose your own adventure generator'*

  Used a GAN to generate visuals and a Character RNN to create a random choose your own adventure game
- **Machine Learning at Berkeley:** *'Flower2Flower'*

  Implemented and trained CycleGAN on Google quickdraw flower dataset and real images of flowers using tensorflow. Made live demo using flask and ReactJS to convert drawings to real images of flowers.

Technical Skills

- **Programming Languages:** Proficient in: C, Python, TeX, Java, Golang, Javascript, React, SQL
  Also basic ability with: RISC V Assembly, CSS.