

# Gaurav Rao

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## Previous Employment

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- Apple** **Cupertino, CA**
  - Machine Learning Engineer* *September 2020–Present*
    - Used embeddings and natural language processing to increase search quality in Siri Search
    - Deployed Golang services using Kubernetes that process indexes over the internet and serve millions of daily active users
- Flipout, Inc** **Berkeley, CA**
  - CTO/Founder* *February 2019–March 2020*
    - Built serverless architecture with Node and Firebase, as well as a live score websocket service in Go, deployed on GCP Compute with Docker-Swarm
    - Grew app to over 1000 daily active users, raised pre-seed round (June '19), SkyDeck HotDesk '19, Free Ventures '19
    - First place SkyDeck hosted Demo Day, Finalist at Berkeley StEP Spring '19 Demo Day
- Amazon** **Seattle, WA**
  - Software Development Engineering Intern* *June 2019–August 2019*
    - Created Java Services and a Javascript frontend for internal stakeholder dashboard
    - Deployed infrastructure through Amazon CloudFormation
    - Wrote debug information from bayesian logistic regression model to Athena database using AWS Firehose
- Machine Learning @ Berkeley** **Berkeley, CA**
  - Undergraduate Researcher* *January 2020–Present*
    - Working with researchers in RiseLAB to create an infinite artificial dataset to study the difficulty of computer vision tasks
    - Wrote a PyTorch Dataloader that interfaces with the Blender rendering pipeline
- Laserlike Inc** **Mountain View, CA**
  - Engineering Intern* *June 2018–August 2018*
    - Used Golang to schedule notifications based on user's interests for reengagement and improve daily active user rate
    - Deployed microservices and reverse proxy endpoints using kubernetes/docker
    - Created interactive online debug tools to benchmark image suggestions and real time notification sending.

## Education

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- University of California, Berkeley** **Berkeley, CA**
  - BA Computer Science and Mathematics, 3.9 CS GPA 30 Putnam Score* *2017–2020*
    - Coursework:* Probability Theory and Random Processes, Data Structures, Machine Structures, Algorithms, Real Analysis, Abstract Algebra, Differential Topology, Cryptography, Graphics, Computational Photography

## Projects

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- 'Blow'**
  - Used Go and webASM to build a mapreduce-like distributed computation framework that runs on browser, then built a raytracer that distributes tasks to connected browsers
- 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

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