Gautam Mittal

gautammittal.com | gbm@berkeley.edu | +1 (480) 648-8254

EDUCATION

UC BERKELEY
B.S. Electrical Engineering & Computer Science (EECS)
Expected May 2022 | Berkeley, CA
GPA: 3.81 / 4.0
Regents' and Chancellor's Scholar
Accel Scholar
Eta Kappa Nu (EECS Honor Society)
Cal Hacks, UC Jazz, Statistics Undergraduate Student Association

SKILLS

LANGUAGES
Python • JavaScript • Swift • Java • C
Scheme • Ruby • Objective-C • SQL

TOOLS
React • GraphQL • Node.js • Flask
Rails • Keras • TensorFlow • Jupyter
NumPy • Flow • HTML • CSS
Processing • Chrome Headless • AWS
GCP • UNIX • Git

LINKS

GitHub: github.com/gmittal
LinkedIn: linkedin.com/in/mittalgautam
Website: gautammittal.com

COURSEWORK

UNDERGRADUATE
CS61A: Structure & Interpretation of Computer Programs
CS61B: Data Structures & Algorithms
CS61C: Machine Structures
CS70: Discrete Mathematics & Probability Theory
CS170: Efficient Algorithms & Intractable Problems
CS186: Database Systems
CS188: Artificial Intelligence
CS198-082: Machine Learning DeCal
EE16A: Linear Algebra, Circuits, & Systems I
EE16B: Differential Equations, Devices, & Systems II
EECS126: Probability & Random Processes
MATH53: Multivariable Calculus
PHYSICS7B: Thermodynamics, Electricity, Magnetism

EXPERIENCE

RISELAB, UC BERKELEY | Undergraduate Researcher
September 2019 – Present | Berkeley, CA

- Working on applications of deep reinforcement learning for database systems with Zongheng Yang under Professor Ion Stoica.
- Presented modular research platform for designing learned database query optimizers with deep RL at RISE Retreat (January 2020).

STRIPE | Software Engineering Intern
May 2019 – August 2019 | San Francisco, CA

- Built an end-to-end data export pipeline for Connect, used daily by Lyft, DoorDash, and others to process millions of financial objects.
- Refactored export infrastructure to use a concurrent GraphQL resolver to enable API-consistent data, faster exports, and increased security.
- Designed and tested data infrastructure using Ruby, ElasticSearch, & MongoDB; worked on Dashboard front-end with React.
- Coordinated UX research study to understand user needs and adjusted engineering & product roadmap accordingly.

EDMODO | Machine Learning Intern
June 2017 – August 2017 | San Mateo, CA

- Designed deep learning models with Python, TensorFlow, NLTK, and Pandas to recommend user-generated questions for content engine with 100M+ users.
- Implemented a training & evaluation pipeline and wrote scripts to preprocess and classify noisy signals from ElasticSearch index of world's largest educational social network.
- Designed experiments with seq2seq translation models, ByteNet, and denoising networks for text normalization; reported directly to CTO for AI.

PROJECTS

COPILOT | Executive Director
June 2016 - June 2018 | JavaScript, Node.js, Firebase

- Designed and implemented an online, anonymous peer-to-peer mental health counseling platform; Source code: github.com/projectcopilot

JAZZML | Real-time Computer Jazz Improvisation
August 2016 | Python, TensorFlow, FluidSynth

- Signal processing (FFT) and recurrent neural network (RNN) to generate improvised jazz solos with live accompanist; Source code: github.com/gmittal/jazzml

AWARDS

2019 IEEE Eta Kappa Nu Member (top 25% of Berkeley EECS)
2019 Accel Scholar (run by Accel Partners & Berkeley EECS)
2019 Kleiner Perkins Engineering Fellow
2018 UC Berkeley Regents' and Chancellor's Scholarship
2018 US Marine Corps & Louis Armstrong Jazz Awards
2016 2016 MIT Zero Robotics Challenge ISS Finalist
2015 Top 10 & Best Cloud App at PennApps XII Hackathon
2015 Apple WWDC Scholarship
2015 Top 10 at MHacks V Hackathon