Mohak Jain

978-885-7852 • mohakjain@berkeley.edu • mohakjain.myportfolio.com • Berkeley, CA / Boston, MA

EDUCATION

University of California, Berkeley
Class of 2022
BSE Bioengineering, EECS
GPA (4 Semesters): 3.9

COURSEWORK

CHEMISTRY & BIOENG.
Organic Chemistry
Biochemistry
Bioethics
Biophysical Chemistry
Cell Engineering
COMPUTER SCIENCE
Computer Science Fundamentals (Python)
Data Structures & Algorithms (Java)
Computer Architecture (C, RISC-V)
Artificial Intelligence
Efficient Algorithms
MATHEMATICS
Multivariable Calculus
Discrete Math & Probability
Linear Algebra & Differential Eq.

SKILLS

- Python, Java, C
- Pandas, Jupyter, NumPy
- Slide Decking in Powerpoint
- Typesetting in LaTeX
- Adobe Photoshop
- English, Spanish, and Hindi

HONORS

- Honorable Mention – Mathworks Math Modeling Challenge (2018)
- Many Awards on FIRST Robotics Competition Team
- Scholastic Art & Writing Award, Drawing
- National Merit Finalist (2018)

I am an engineering student & researcher pursuing a career in gene editing tools. I want to apply gene editing to curing diseases, engineering better crops, and solving climate change. I'm also interested in business, both in and out of the biotech ecosystem, and exploring non-traditional paths to achieving my goals.

EXPERIENCE

Undergraduate Researcher at Doudna Lab (Spring, Fall 2019, Spring 2020)
The Doudna Lab is known for discovering gene editing tool CRISPR/Cas9 and CRISPR & RNA biology research.

- Working under graduate student Joy Wang at Professor Jennifer Doudna's lab at UC Berkeley on a project on CRISPR foreign nucleic acid acquisition.
- Performing a wide variety of biochemistry lab techniques in a top research lab including: Cloning, electrophoresis, culturing, protein purification, lab safety, etc.

Genome Engineering Intern at enEvolv (Summer 2019)
Synthetic biology startup spun out of George Church's lab at Harvard University. Acquired by Zymergen, March 2020

- Worked on project improving efficiency of MAGE (Multiplex Automated Genome Engineering) in *S. cerevisiae* (Baker's yeast) to commercially viable rates.
- Wrote interim report to the National Science Foundation on the project.
- Programmed scripts using Python and bioinformatics libraries for experimental design & data analysis. Performed wet-lab work genetically engineering yeast.
- Skills learned include: yeast culturing, notebook keeping in Benchling, Bioinformatics, Python script writing, MAGE, library building, etc.

PROJECTS

NumC (Summer 2020)
Project description: https://github.com/mohakjain/numc-Public-

- Recreation of the popular Python library NumPy using a C-Python interface, with an emphasis on optimizing code as much as possible.
- Top 5 fastest ranked solution in the course CS61C, Computer Architecture.
- Written in C, Python. Utilizes parallelism, vector operations through AVX intrinsics, and efficient algorithms for computation on matrices.
- Contact me to access code; Courses do not allow code to be released publicly.

EXTRACURRICULAR INTERESTS

Analyst at Phoenix Consulting Group (Spring, Summer 2020)
UC Berkeley-based consulting group focused on healthcare/biopharma companies.

- Spring project was as an analyst as part of a team consulting for a San Francisco-based biotech startup in the single cell next-generation sequencing multi-omics space.
- Summer project was for a startup working on bringing a revolutionary COVID-19 diagnostic to market.

Design Chair for AFX Dance (Summer, Fall 2019, Spring 2020)
Urban/hip-hop dance organization at UC Berkeley; One of the largest clubs on campus at ~800 members.

- Designed widely purchased apparel, doubling sales from previous semester.
- Designed flyers advertising events, auditions, and fundraisers.
- Dancer for four semesters.

Visual Arts

- Work in assorted media; See mohakjain.myportfolio.com