MOHAK JAIN

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

EDUCATION

University of California, Berkeley
B.S.E. Bioengineering, Electrical Engineering & Computer Science (EECS)
GPA (4 Semesters): 3.9
Graduation: May 2022

COURSEWORK

Bioengineering:
Organic Chemistry, Biochemistry, Bioethics, Biophysical Chemistry, Cell Engineering
Computer Science:
CS Fundamentals (Python), Data Structures (Java), Computer Architecture (C, RISC-V), Artificial Intelligence, Efficient Algorithms

SKILLS

Programming:
Python, Java, C
Pandas, Jupyter, NumPy
Visual Arts/Design:
Adobe Photoshop
Work in assorted media: mohakjain.myportfolio.com
Other:
Slide Decking in PowerPoint
Typesetting in LaTeX
English, Spanish, Hindi

INTERESTS

Professional:
Biotech/Tech Venture Capital
Synthetic Biology
Gene Therapy
Gene Editing Tools
For Fun:
Reading literature & sci-fi
Curating Spotify playlists
Pen & paper puzzles

EXPERIENCE

Researcher at Goodarzi Lab & Vector Institute (Sept. 2020 - Present)
The Goodarzi Lab at UCSF uses computational frameworks to research translational genomics and cancer. The Vector Institute in Toronto conducts AI research.
- Working on a project predicting 3D genome architecture (Hi-C) from ATAC-seq data using graph convolutional neural networks and deep machine learning.

Undergraduate Researcher at Doudna Lab (Jan. 2019 – Mar. 2020)
The Doudna Lab is known for discovering gene editing tool CRISPR/Cas9 and CRISPR & RNA biology research.
- Worked at Professor Jennifer Doudna's lab at UC Berkeley on understanding structure & function of RT-Cas1 involved in CRISPR RNA acquisition.
- Performed 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 (Jun. – Aug. 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 (Aug. 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 matrix computation.

EXTRACURRICULAR INTERESTS

Senior Analyst at Phoenix Consulting Group (Feb. 2020 - Present)
UC Berkeley-based consulting group focused on the healthcare space.
- Consulted for a startups in the single cell next-generation sequencing multi-omics space and in COVID-19 diagnostics.
- Present to C-Suite executives, conducted market research with researchers & industry professionals

Design Chair for AFX Dance (Jun. 2019 – May 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 promoting events, auditions, and fundraisers.
- Dancer for four semesters.