MOHAK JAIN

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EDUCATION

University of California, Berkeley
B.S.E. Bioengineering
B.S.E. Electrical Engineering & Computer Science (EECS)
GPA (5 Semesters): 3.8
Graduation: May 2022

COURSEWORK

Bioengineering:
Organic Chemistry
Biochemistry
Bioethics
Cell Engineering
Synthetic Biology
Computer Science:
CS Fundamentals
Data Structures
Computer Architecture
Artificial Intelligence
Algorithms/Intractable Problems
Computer Graphics
Machine Learning for Comp. Bio.

SKILLS

Programming:
Python, C, C++, R, Javascript, Java
PyTorch, TensorFlow, Pandas, Jupyter, NumPy
Visual Arts/Design:
Adobe Photoshop
Work in assorted media: mohakjain.myportfolio.com

INTERESTS

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

EXPERIENCE

Incoming Software Engineering Intern at Datavant (Summer 2021)
Datavant is a Series B startup dedicated to connecting data silos across healthcare institutions to improve clinical studies while protecting patient privacy.

Undergraduate Researcher at Doudna Lab (Jan. 2019 – Present)
Nobel Laureate Prof. Jennifer Doudna's lab at UC Berkeley is known for discovering gene editing tool CRISPR/Cas9 and CRISPR & RNA biology research.

- Currently processing NGS data to identify novel viral gene editing technology.
- Previously worked on understanding structure & function of protein RT-Cas1 involved in CRISPR RNA acquisition.
- Performed biochemistry techniques including cloning, culturing, protein purification, etc.

Undergraduate Researcher at Goodarzi Lab (Sept. 2020 - Present)
The Goodarzi Lab at UCSF uses computational frameworks to research genomics and cancer.

- Working on a project predicting 3D genome architecture (Hi-C) from ATAC-seq data using graph convolutional neural networks and deep machine learning.

Principal at Phoenix Consulting Group (Feb. 2020 - Present)
UC Berkeley-based consulting group focused on the healthcare space..

- Leading development of a health-tech accelerator for early-stage startups
- Consulted for companies in single cell next-generation sequencing, COVID-19 diagnostics, molecular diagnostics, and mental health.
- Presented deliverables to C-Suite executives, conducted market research with researchers & industry professionals

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.
- Performed yeast culturing, Benchling, Python scripting, 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

Design Chair for AFX Dance (Jun. 2019 – May 2020)
Urban/hip-hop dance organization at UC Berkeley and largest club on campus at ~800 members.

- Dancer; Designed apparel and flyers promoting events, auditions, and fundraisers.