Evan Edelstein

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Education

Yeshiva University, *June 2021*
Major: Biochemistry | Minor: Mathematics | GPA: 3.87
Relevant Coursework: Computational Biology of Proteins (Graduate), Biostatistics and Informatics (Graduate), Linear Algebra, Physical Chemistry I & II (Honors), Intro to Algorithms and Vector Calculus for Engineers (Honors).
Certifications and Awards: Kressel Research Scholar, Excellence in the Study of Natural Sciences, Excellence in Chemistry, EMT, Mental Health First Aid.

Skills

Coding Languages and Tools:
· Python (Pandas/Scikit-learn), C++, JavaScript (Node/React/Next), R, Bash, Unix, SQL, Git, Docker, Slurm, AmberMD

Projects

Pericaat *April 2022 - present*
· Developing Python program to automate protein engineering by identifying pharmacologically relevant protein residues at the periphery of a proteins interface.

What's For Dinner? *February 2022 - present*
· Designing C++ command line application to automate meal planning.

Community Builder, *December 2021 - present*
· Designing full-stack web application to organize and generate marketing campaign content.
· Implementing Database to organize data and generate detailed analytics.

Fiser Lab Website *June 2021 – present*
· Designing efficient server-side rendered website using Next.js to provide external access to lab developed software.
· Creating animations and UI components with Next.js, Framer-motion, and Chakra-UI.

ISPIP, *May 2021 – June 2021*
· Implemented Python package and GUI to assist drug target discovery by providing a machine learning based protein interface prediction and visualization tool.

Experience

Albert Einstein College of Medicine, ***Research Trainee,*** *June 2021 – present*
· Studying the effects of mutation on protein interactions by change in binding-energy using Molecular Dynamic simulation.
· Using C++ to parse simulation data, perform statistical analyses and draw meaningful conclusions.

Katz School of Science and Health, *Student,* *January 2021 – May 2021*
· Studied association between quality of sleep and health by ANOVA, chi-square, and t-test in patient data using R.
· Developed a regression model to identify high risk patients from self-reported sleep data.

Yeshiva University, *Undergraduate Researcher,* *May 2019 – May 2021*
· Created machine learning approach for protein interface prediction, improving MCC by 25% and increasing ROC-AUC from 0.73 to 0.88, by utilizing a Histogram-based Gradient Boosting Regression Tree.
· Implemented quality of model statistics using fast-Delong algorithm and cross-validation techniques.

Leadership

Albert Einstein College of Medicine, *Teaching Assistant,* *December 2021 – Present*
· Lectures on introductory programming, Python and Pymol to Biology 10 PhD students.

Yeshiva College Computer Science Journal Club, *Vice President,* *June 2020 – May 2021*
· Organized and led bi-weekly discussions of foundational and SOTA CS papers to 25 fellow students.