

NICHOLAS ROSENAU

New York, NY · nicholas.c.rosenau@gmail.com · 2035202065

EDUCATION

Northeastern University
Graduate Certificate Computer Science

Boston, MA
Sep 2019 - May 2020

Emmanuel College
BS Neuroscience

Boston, MA
Sep 2013 - May 2017

WORK EXPERIENCE

Lattice Automation
Software Engineer

Remote
January 2021 - Present

- Help plan and architect software as a part of the in silico group of the Wellcome Leap R3 program. Building out a backend in Python to process biological data from other R3 members and calculate an RNA manufacturability rating. Designing and building a dashboard in React and Tailwind CSS for displaying details on RNA manufacturers.
- Translated a synthetic biology academic paper (<https://doi.org/10.1021/acssynbio.5b00232>) into a data science project written in Python. Used K-means clustering and linear regression to draw insights from biological datasets. Utilized Python libraries such as numpy and scikit-learn.
- Built a full-stack web application (React/Flask/AWS) from development to production, based around the open-source NCBI BLAST software. Utilized frontend technologies such as JavaScript/ES6, React, Sass, HTML and CSS. Gained experience with Typescript and frontend testing frameworks such as Cypress. Gained experience in UI/UX design through making mockups/wireframes using Adobe XD.
- Built a full-stack web application (React/Flask/PostgreSQL/AWS) from development to production for laboratory device management. Gained experience with MySQL and PostgreSQL.
- Engaged in DevOps work building Gitlab and Github CI/CD pipelines, contributing to and utilizing custom python libraries for creating CloudFormation JSON, and utilizing various AWS technologies such as ECS, ECR, s3, EC2, EFS, AWS Lambda, and RDS.
- Gained experience with client interactions which included weekly reports and meetings, managing client expectations, and communicating technical concepts effectively.

Whitehead Institute for Biomedical Research (MIT)
Genetically Engineered Models (GEM) Technician II

Cambridge, MA
January 2018 - January 2021

- Worked as a laboratory technician in the lab of MIT professor Rudolf Jaenisch. Designed and implemented wet lab CRISPR experiments for scientists across the research institute and MIT community. Completed multiple projects for 13+ scientists across MIT as well as pharmaceutical companies in Cambridge, MA.
- Published author in the scientific journal Molecular Cell (<https://pubmed.ncbi.nlm.nih.gov/31422875/>).

TECHNICAL SKILLS

Languages:	Python, Javascript/HTML/CSS, SQL, Bash, Java, Kotlin, Typescript, Sass
Frameworks and Libraries:	React, Flask, Node.js, Express.js, Keras, scikit-learn, NumPy, Serverless Framework
Tools:	Git, Docker, AWS(EC2, S3, RDS, Lambda, ECS, EFS), CI/CD, Gradle, Google Colab