

Roy Lee

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EDUCATION

Columbia University

New York, NY

B.A. Computer Science - Mathematics — GPA 4.0

Expected May 2027

- Coursework: Linear Algebra, Discrete Math, Structures and Interpretations of Computer Programming
- Activities: Columbia Organization of Rising Entrepreneurs, Columbia Quant Group, Columbia Robotics

TECHNICAL SKILLS

Languages: Javascript/Typescript, Python, C/C++, Golang, SQL, HTML/CSS, Matlab

Technologies/Frameworks: Pandas, NumPy, TensorFlow, SciKitLearn, ReactJS, Git, Node, Django, REST APIs

EXPERIENCE

Software Engineer Intern

June 2024 - Present

Nucleus Genomics

New York, NY

- Implemented automated tests with **Jest** and **Cypress**, resulting in a **30%** reduction in deployment bugs.
- Developed automated email generation infrastructure using **AWS** for internal tools used company-wide.
- Implemented caching mechanisms with **Redis**, reducing server load by **20%** for frequently accessed information.
- Designed and built user-facing features using **Typescript**, **Next.js**, **React**, **Git**, **AWS**, **Redis**, and **MongoDB**.

Software Engineer

June 2023 – Sep 2023

BeelikeCoders

Oakland, CA

- Developed the event website with **React** and **TailwindCSS**, resulting in a **48%** increase in participant growth.
- Leveraged data-driven SEO strategies and advanced user analytics to attract **\$1,500** in sponsorships.
- Ensured website performance and user experience through responsive design and frontend optimizations.

Research Intern

December 2023 - Present

University of California, Berkeley | Relationships and Social Cognition Lab

Berkeley, CA

- Conducted data analysis using **Python**, **R**, and **Pandas**, identifying key trends and correlations in survey data.
- Improved **NLP** models for sentiment analysis, achieving a **30%** increase in accuracy using cross-validation sets.
- Developed methodologies using statistical techniques, resulting in a **25%** increase in publication accuracy.

Teaching Assistant

August 2023 - April 2024

Laney College | Structures and Interpretations of Computer Programs

Oakland, CA

- Led remedial programming workshops, resulting in a **25%** improvement in student performance on related exams.
- Designed supplementary lecture materials on recursion and time complexity, increasing lecture engagement.
- Utilized Python and Jupyter Notebook to create interactive coding exercises on OOP principles.

PROJECTS

The Sweet Cut (thesweetcut.com)

- Founded a cookie business with over **5,000 page visitors** and **100 paying customers**, overseeing all aspects of business development. Developed and maintained the e-commerce website, generating **four figures** in revenue.
- Utilized: AWS (SES, RDS), Typescript, Next.js, MongoDB, TailwindCSS, Node, Redis, Stripe, Git

Internio (internio.co)

- Built a web-scraping tool allowing users to view and receive email updates for **1,000 internship opportunities**.
- Utilized: AWS (EC2), Python, Typescript, REST APIs, Django, Postgres, Next.js, Nginx, Redis, Celery, Git

Bayborhood (bayborhood.com)

- Developed a visualization tool to filter neighborhoods based on **7 data-driven characteristics** from APIs.
- Utilized: Python, Javascript, REST APIs, ReactJS, Jupyter Notebook, Mapbox, Geopandas, Vercel, Git

AWARDS

American Invitational Mathematics Examination: 2x AIME Qualifier (90th percentile of competitors)

M3 Math Modeling Competition: International Semi-Finalist (Top 12 out of 400+ teams)