Eric Yu

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Graduate student at University College London studying Software Systems Engineering, with a background in synthetic biology and financial technologies. Proficient in backend and data engineering, MLOps, and Unix systems, with publications and talks at multiple conferences.

EXPERIENCE

Software Engineer (Backend) Creative Juice

May 2021 - Apr 2023

- Developed and deployed a backend banking-as-a-service platform (Spring Boot, Unit Finance, Plaid) that supported over 200 funded bank accounts and \$2MM+ in deposits.
- Automated loan repayment collection from Google AdSense payments via Pub/Sub messaging and Java microservices, freeing up 10+ hours per week previously spent on manual collection.

Undergraduate Research Assistant Genetic Logic Lab

University of Utah Sep 2019 – May 2022

- Advisor: Dr. Chris Myers
- Integrated a genetic sequence search tool into SynBioHub, an open-source repository for synthetic biology designs, allowing users to perform sequence-based searches via file upload.
- Maintained and enhanced SBOLExplorer, a distributed genetic part search tool which uses Elasticsearch and OpenLink Virtuoso to build an inverted index for faster queries.

EDUCATION

University College London

M.S. Software Systems Engineering

Sep 2024 - Sep 2025

- Industry Project (Cisco): A Visual Inspection Tool
- Courses: Validation & Verification, Requirements Engineering & Software Architecture, Engineering Ethics, MLOps

University of Utah

B.S. Computer Science, Minor in Mathematics

Aug 2019 – May 2022

- 3.85 GPA
- Dissertation: SynBioHub 3 An Improved Synthetic Biology Repository
- Advisor: Dr. Chris Myers

Skills

Programming C/C++, Bash, Python, Java, SQL

Tools Git, Spring/Spring Boot, Docker, Kubernetes, Ansible, Terraform, Dagster, Languages English, Mandarin Chinese, Cantonese

TALKS

- 1. SynBioHub2 Providing an Intuitive and Maintainable Genetic Design Repository, *The Thirteenth International Workshop on Bio-Design Automation*, Virtual, Sep. 2021.
- 2. SynBioHub3: A Redesigned Parts Repository, *Hackathons on Resources for Modeling in Biology* 2021, Virtual, Mar. 2021.
- 3. Sequence-based Searching For SynBioHub Using VSEARCH, *The Twelfth International Workshop on Bio-Design Automation*, Virtual, Aug. 2020.

PUBLICATIONS

- 1. **Yu, E.**, Mante, J., and Myers, C. J. (2022) Sequence-Based Searching for SynBioHub Using VSEARCH. ACS Synthetic Biology 11, 990–995.
- 2. Mante, J., Hao, Y., Jett, J., Joshi, U., Keating, K., Lu, X., Nakum, G., Rodriguez, N. E., Tang, J., Terry, L., Wu, X., **Yu, E.** et al. (2021) Synthetic Biology Knowledge System. ACS Synthetic Biology 10, 2276–2285.

AWARDS

• Best Startup Project, HackTheU

2019