Eric Yu

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Graduate of University College London (UCL) with a Master's in Software Systems Engineering. Background in synthetic biology and financial technologies, with experience working at a Forbes Fintech 50 startup. Proficient in backend and data engineering, MLOps, and Linux systems, with publications and talks at multiple conferences.

Experience

Software Engineer (Intern) — London
Cisco — *Jun 2025 – Sep 2025*

- Built an open-source, cross-platform video player and inspection tool, allowing video engineers to compare output quality and detect visual artifacts from different compression algorithms.
- Used Qt and C++ to build a lightweight application compatible with multiple operating systems and graphics APIs.
- Leveraged FFmpeg to support playback of various raw and encoded video formats.

Software Engineer (Backend) — Remote
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 — University of Utah
Genetic Logic Lab — *Sep 2019 – May 2022*

- 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*

- Courses: Validation & Verification, Requirements Engineering & Software Architecture, Engineering Ethics, MLOps, Financial Markets Modelling & Analysis

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

Skills

Programming C/C++, Bash, Python, Java, SQL
Tools Git, Linux, Spring/Spring Boot, Docker, Kubernetes, Ansible, Terraform, Dagster, LaTeX
Languages English, Mandarin Chinese, Cantonese

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.

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.