# Eric Nai-Li Chen

Human-Computer Interaction • Creativity Support
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## EDUCATION

**Brown University** — *Providence, RI*
Master's in Computer Science, Advisor: Jeff Huang — *Sept 2023 – Expected May 2025*

**University of California, Los Angeles** — *Los Angeles, CA*
B.S. in Computer Science & Minor in Mathematics, GPA: 3.9 — *Sept 2018 – June 2023*

## RESEARCH EXPERIENCE

**Brown University HCI Lab** | *Research Assistant** — *Providence, RI*
Advisors: Tongyu Zhou, Jeff Huang — *Feb 2024 – Present*

- Personally invented, implemented, and deployed L-ink: an L-system vector drawing tool empowering artists to create animated organic structures with a single stroke; **first-author paper for UIST 2025 in preparation**
- Designed user study investigating how controllability & surprise in procedural tools impacts the creative workflow of digital artists
- Documented independent research progress, user insights, and design decisions in 140 entries over the course of 8 months
- Implemented LLM-based generative SVG stamps for customizable foliage effects
- Presented L-ink to Adobe Research Scientist with positive feedback

**Research project funded by Adobe*

**NASA Academic Mission Services** | *Data Science Intern* — *Mountain View, CA*
Advisors: David Bell, Aditya Das, Milad Memarzadeh — *June 2020 – Sept 2021*

- Spearheaded multi-organizational project creating wildfire machine learning models in collaboration with high-level researchers
- Aggregated data from 600,000 flights across 345 US airports to train end-to-end machine learning pipeline predicting flight delays
- Presented findings in **3 first-author research poster publications** at the NASA Ames poster symposium

## SELECTED PROJECTS

**Undefined Behavior** — *Jun 2022 – Present*

- Created interactive web explainers to explore novel ideas at the intersection of math, computation, and humanity
- Authored mathematical web app and article connecting L-systems with axiomatic set theory, powered by React and P5.js
- Wrote expository content and Python script exploring the discrepancy between linear pitch perception and the exponential note-frequency relationship

**Video Analogies** — *Nov 2023 – Dec 2023*

- Extended the work of Hertzmann et al. by enabling patch-based style-transfer from images to videos

**Hyacinth Labyrinth** — *Nov 2023 – Dec 2023*

- Developed 3D procedural hedge-maze game rendered in Vulkan
- Built custom L-system engine in Blender and defined configurable JSON format with tunable stem radius, leaf size, branch angle, tessellation levels, and pruning

## RELEVANT COURSEWORK

UI/UX, Computer Graphics, Computational Photography, Computer Vision for Graphics & Interaction, Deep Learning, Machine Learning, Data Science, Drawing with Computers

## SKILLS

JavaScript, React, HTML/CSS, Python, C/C++, OpenGL, TensorFlow, Git, User Research, Leadership