

KILEY MATSCHKE

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EDUCATION

Columbia University, School of Engineering and Applied Science

Expected Sept. 2025 - Dec. 2026

MS, Computer Science | New York, NY

HarvardX

2024

CS50G: Introduction to Game Development | Remote

Barnard College

Sept. 2019 - May 2023

BA, Computer Science & Psychology | New York, NY

TECHNICAL SKILLS

Figma, Balsamiq, Procreate, Python, HTML/CSS, JavaScript, Lua/LÖVE, Git, PostgreSQL, Java, C

RELEVANT EXPERIENCE

Design Tools Laboratory

Feb. 2026 - Present

Research Assistant | New York, NY

- Lead user study sessions and translate findings into design improvements
- Contribute to the design, development, and evaluation of a web-based creative coding environment
- Co-author a research paper on LLM-assisted creative coding tools, under review at ACM UIST

Vagelos Computational Science Center

July 2023 - July 2025

Post-Baccalaureate Fellow | New York, NY

- Conducted independent research in game development and built functional games from scratch
- Facilitated 40+ community events exploring interdisciplinary and accessible applications of technology
- Co-led 4 cohorts of Computing Fellows, undergraduate peer mentors supporting computing-related courses
- Designed and published digital and physical assets for campus events and Center outreach

Microsoft TEALS

Jan. - June 2025

Introduction to Computer Science Volunteer Teacher | New York, NY

- Managed development of student mobile app prototypes selected as finalists in a regional design competition
- Taught fundamentals of game design through Microsoft MakeCode Arcade and Python
- Collaborated with a team of educators to ideate lesson flows and refine curriculum

PROJECTS AND PRESENTATIONS

The Humor Project

Jan. - May 2026

- Built a full-stack system to collect and analyze human feedback on AI-generated captions
- Developed a public voting app, admin dashboard, and prompt testing tool to support large-scale evaluation and iteration of humor models
- Conducted user studies and applied insights to improve usability and accessibility

The Nutty Arcade: Gamifying Squirrel Census Data - NYC Open Data Week 2025

Oct. 2024 - Mar. 2025

- Used Figma, Excel, and Lua/LÖVE to create a 2D data interface visualizing squirrel populations across NYC
- Presented an open workshop on the intersection of data visualization and game development/design

Jamming with Environmental Data - NYC Open Data Week 2024

Oct. 2023 - Mar. 2024

- Analyzed NYC DOE energy usage data in Python to explore patterns in building performance
- Presented an open workshop and data jam on creative, interactive approaches to working with data

Picnic Ant-ics

Oct. 2023 - June 2024

- Developed a 2D video game in Lua/LÖVE with custom assets, sprites, scenery, and animations
- Refined interaction mechanics (motion, physics, object manipulation) based on user feedback

Meal Pals

Sept. - Dec. 2022

- Designed and prototyped a mobile application for social meal coordination
- Collaborated with teammates to conduct usability tests, analyzing user behavior to inform design iterations
- Designed user flows, wireframes, prototypes, and a demo using Balsamiq, Figma, and HTML/CSS