Ejean Kuo

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Education

Northwestern University **Evanston, IL**

BA in English and Computer Science (Concentration: Artificial Intelligence) *June 2027*

- GPA: 3.92; Dean's List 6/6 Quarters; Kaplan Institute Scholar
- Coursework: Computer Systems (C, x86-64), Artificial Intelligence (Python), AI Narratives (C#), Computer Programming (C, C++), Discrete Mathematics, Data Structures, Algorithms

Experience

Climate Action Evanston **December 2024 – June 2025**

Software Engineer Intern *Evanston, IL*

- Designed and implemented a fullstack tracking form and data visualization extension for a non-profit's website supporting 2500+ users, centralizing data collection & display into one location, and reducing manual tracking efforts and reporting time by 40%
- Implemented a REST API in Node.js with cookie-based authentication to categorize volunteer submissions into 6 climate programs, ensuring efficient frontend updates after each submission, edit, or deletion
- Created a form-based React.js frontend and Supabase backend enabling non-technical staff to add content displayed on the site
- Coordinated Git version control with a team of 6 interns to smoothly collaborate and implement new features

Department of Computer Science, Northwestern University **May 2025 – Present**

Undergraduate Researcher *Evanston, IL*

- Selected in a competitive 20-student research cohort, collaborating with a mentor to present at the CS Research Showcase
- Developed and iterated on methodology for mathematical modeling software, maintaining detailed research logs and documentation

Projects

Ranklit | *Figma, Swift, Supabase, Open Library API* **Summer 2025 – Present**

- Built a full-stack iOS app for book tracking, enabling curated lists and personalized ratings through a pairwise ranking algorithm
- Developed user authentication flows (Log In/Create Account) with email + username support, syncing data to Supabase
- Implemented user-specific lists (Favorites, Want to Read) backed by Supabase RLS and book data from Open Library API

Pacman Trainer | *Python* **Summer 2025**

- Created pathfinding engine with A* search in Python, delivering optimal navigation strategies and visualizations in Tkinter
- Trained reinforcement learning agents, applying Q-Learning to optimize policies and validate results through benchmark testing
- Designed probabilistic models to estimate hidden states from noisy data, improving agent's decision-making under uncertainty

Volunteer Form / Event Display Scoreboard | *React, JavaScript, HTML, CSS, Figma, Supabase* **Winter 2025**

- Developed a sorted scoreboard with backend API calls to visualize volunteer contributions, improving visibility of climate activism
- Added separate workflows (create vs. edit) utilizing client-side routing and component structure

CTA Bus Tracker | *C, C++* **Fall 2024**

- Created a navigation tool for an open street map of Evanston, listing the 3 closest buses to a given building with arrival times
- Parsed map files using TinyXML to extract geospatial points and reconstruct buildings and paths for navigation
- Integrated Chicago Transit Authority's bus API to retrieve real-time bus locations and proximity to bus stops and buildings

Leadership & Extracurricular

Develop & Innovate for Social Change **Spring 2025 – Present**

VP of Finance *Northwestern University*

- Secured 5 grants totaling $6,500, a 160% increase in funding over 2 months, impacting 135+ students and 30+ clients
- Managed purchasing operations via budget tracking, oversight of 4 bank accounts, and streamlined reimbursements

Mock Trial **Fall 2023 – Present**

Collegiate Mock Trial Competitor *Northwestern University*

- Competed at UCLA, Georgetown, and UChicago, winning a bid at AMTA's 2024 Iowa Regional Mock Trial Competition
- Presented 7-min openings and cross-exams, demonstrating persuasive speaking, quick improvisation, and adaptation

Technical Skills & Interests

Languages: Python, C++, C, Java, Swift, TypeScript, JavaScript, HTML, CSS, SQL, x86-64, LaTex
Technologies/Frameworks: React.js, Node.js, Supabase, Figma, Git, VS Code, MS Office Suite, macOS, Overleaf, GTest
Interests: Full Stack Software Engineering, Natural Language Processing, Machine Learning, Patent Law, Tech and Law