Eric Nguyen

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EDUCATION

University of California, Berkeley — **Berkeley, CA**

***GPA**: 3.9/4.0 - Electrical Engineering & Computer Science (EECS), B.S.* — *Expected May 2028*

Courses: Structure and Interpretation of Computer Programs, Linear Algebra & Differential Equations, Discrete Math & Probability Theory *(In Progress)*

Evergreen Valley College (Dual Enrollment) — **San Jose, CA**

***GPA:** 4.0/4.0* — *June 2022 - May 2025*

Courses: Multivariable Calculus, CS II: Data Structures & Algorithms, Programming in C++

PROFESSIONAL EXPERIENCE

SkedAI *(Berkeley SkyDeck-backed)* — **Berkeley, CA**

Software Engineer Intern — *Jan 2026 - May 2026*

- Design and implement user-centric frontend interfaces for an AI-powered scheduling platform using React, TypeScript, JavaScript
- Translate complex scheduling logic into intuitive UI flows by applying user empathy and real-world usage analysis
- Collaborate on frontend architecture and API integration using Node.js to support intelligent scheduling behavior

Extern, Outamation — **Southlake, TX**

Remote AI/ML Development Extern — *Nov 2025 - Dec 2025*

- Engineered modular AI pipelines for large-scale mortgage document processing using OCR (Tesseract), PyMuPDF parsing, and RAG
- Developed a scalable LlamaIndex + RAG document retrieval system with chunk tuning, metadata filtering, and LLM evaluation
- Performed empirical analysis of model performance and failure modes to improve retrieval precision and downstream answer quality
- Benchmarked OCR accuracy and RAG retrieval metrics; produced deployment recommendations and demo UI

UC San Diego, Jacobs School of Engineering — **San Diego, CA**

ECE Research Intern — *July 2024 - Aug 2024*

- Automated BB84 cryptographic protocol to validate secure quantum key distribution (QKD) against advanced cyber threats
- Designed asynchronous control logic via Arduino to optimize laser pulsing and waveplate rotation, reducing encryption time by 40%
- Developed low-latency C++ encoding/decoding algorithms for efficient binary conversion and secure data encryption

PROJECTS

Project Engenuity: Civil Structures | *C#, Unity*

- Architected a sophisticated 2D interactive bridge-building simulation for 5th-8th grade classrooms using Unity and C# scripting
- Implemented physics-based mechanics, including drag-and-drop interactions, to simulate real-world forces like tension and compression
- Designed intuitive UI/UX and game tutorials to teach physics concepts, ensuring accessibility for young players

QUALIFICATIONS

Machine Learning: RAG, Document Intelligence, Semantic Search, Embeddings, LLM Evaluation, Model Benchmarking

Skills: Frontend Development, AI & Data Pipelines, Game Development, Simulation & Visualization

Fundamentals: Data Structures & Algorithms, Dynamic Programming, Time Complexity, Debugging, Unit Testing

Languages: Python, Java, C++, JavaScript, TypeScript, SQL, C, C#, HTML/CSS, Regex

Tools: Unity, React, Node.js, PyMuPDF, Tesseract OCR, LlamaIndex, Mistral, Phi-2, Google Colab, Arduino

EXTRACURRICULAR EXPERIENCE

Mathematics, Engineering, Science Achievement (MESA) @ SJSU Chapter — **San Jose, CA**

Vice President — *Aug 2023 - May 2025*

- Spearheaded outreach efforts (club rushes, class presentations) to increase chapter membership by 35+ over 2 years
- Organized STEM guest speaker events and designed workshops on resume-building and STEM career readiness
- Developed an Ethics & Science Communications curriculum to teach and examine ethical responsibility in STEM fields