Emilio Andere

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EDUCATION

The University of Chicago

Chicago, IL

B.S. in Computer Science, B.A. in Mathematics

Expected May 2025

- Activities: President/Co-Founder Blockchain Chicago, Member Kappa Theta Pi
- Relevant Coursework: Honors Computer Science I & II, Computer Systems, Computer Architecture, Honors Theory of Algorithms, Discrete Mathematics, Accelerated Real Analysis, Abstract Linear Algebra, Abstract Algebra, Programming Languages, Web Development (graduate), Fundamentals of Deep Learning (graduate)

Cumbres International School

Guadalajara, Mexico

High School Diploma (Valedictorian, 3rd Place Jalisco Math Olympiad, 2nd Place Mathematics PIBA International competition)

EXPERIENCE

Software Engineer Intern, Elicit

June 2024 – September 2024

- Engineered 30% faster uploads and 12% higher uptime for research paper upload system via backend/frontend optimizations.
- Doubled (2x) cell click-through rates by engineering a table feature showcasing LLM reasoning and supporting quotes.
- Served 10,000+ daily users with an engineered journal quality filtering system using vector DB backend and frontend controls.
- Successfully merged over 50 pull requests, concentrating on backend optimizations and front-end logic improvements.

Software Engineer Intern, Sphere Labs

July 2023 - September 2023

- Led development of \$300K monthly volume on/off-ramp full-stack feature for stable-coins to fiat-currency swaps.
- Integrated a bank-to-stable-coin API into 30+ customers' workflows, streamlining payout functionalities.
- · Increased on-chain subscriptions contract reliability with unit testing and validation libraries using Anchor and Rust.
- Achieved 15% boost in transaction volumes with an integrated micro-service built in NestJS for card-to-crypto conversions.

ML Research Engineer, Security, Algorithms, Networks, and Data Lab

January 2022 – December 2022

- NeurIPS 2022 publication: Contributed to the machine learning field with research on "Natural Backdoors in Object Datasets."
- · Developed an object-detection image classifier using TensorFlow, trained on ImageNet and OpenImages datasets.
- · Analyzed 200GB ImageNet dataset, ablating and plotting insights as supporting figures for the published research paper.
- 20% improvement in internal graph analysis effectiveness through comparison of ranking methods for physical triggers.
- Enhanced model robustness by identifying and mitigating various spurious correlations in ML models.

Software Engineer Intern, Impossible Finance

July 2022 – September 2022

- 11% increase in daily active users achieved by implementing a React-based coin-staking protocol for liquidity pool filtering.
- 19% faster API response times delivered through Redux-driven middle-layer state management, optimizing liquidity operations.
- · 8% boost in user engagement realized by engineering a Postgres and Golang back-end for the "learn-and-earn" feature.
- 15% improvement in front-end visual coherency attained via iterative design enhancements, closely aligned with prototypes.

Software Engineer Intern, Glip

September 2020 - March 2021

- 130% increase in platform content via Python-based tool for automated YouTube clip scraping and AWS server uploading.
- 200+ Discord servers reached through custom-built automated advertising and invitation bot using discord.py.
- 16% faster content display time realized by enhancing back-end AWS EC2 video retrieval queries with caching methods.

NOTABLE PROJECTS

• NeurIPS 2022 Publication: Authored paper and open-source code on Natural Backdoor Datasets.

Ian-Dec '22

• transcript.ai: Engineered AI-powered YouTube transcription tool with titles, chapters, and summaries.

Dec '23

• <u>find-good-podcasts</u>: Developed LLM-powered podcast discovery platform using TypeScript, React, and Next.js.

May '24

• <u>UChifi</u>: 1st place project at UChicago Showcase —Peer-to-peer network monitoring software.

Nov '22 - Jan '23

• <u>Schoolhouse.world</u>: Founding tutor, educated 200+ global students in calculus and computer science.

March-Dec '21

SKILLS

Programming Languages: Typescript, Javascript, Python, SQL, Haskell, C, Golang, Bash

Technologies: Node, React, Nest, Nest, Jest, Redis, Postgres, Mongo, Docker, AWS, Redis, Pandas, PyTorch, NumPy, Linux