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Evan Maus

Economics | Data Science | Berkeley

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EDUCATION

University of California, Berkeley **Planned Graduation: May 2027**
Bachelor of Arts in Economics *Berkeley, CA*
Bachelor of Arts in Data Science
Minor in Computer Science

RELEVANT COURSEWORK

- Structure and Interpretation of Computer Programs
- Introduction to Probability and Statistics
- Principles and Techniques of Data Science
- Macroeconomics
- Data Structures
- Microeconomics
- Econometrics
- Linear Algebra
- Probability for Data Science
- Game Theory
- Data Science for Economists
- Machine Structures

EXPERIENCE

Full stack developer **(Freelance)** **January 2024 - Present**

- Shipped three client projects end-to-end using Next.js with TypeScript; worked directly with stakeholders from scope to launch.
- Built and launched Breakout Study Tool (breakouts.trade), a trading education platform I use daily, featuring subscription-based monetization with free and premium tiers for user access.
- Developed X (Twitter) scraper to generate leads and identify potential users interested in breakout trading patterns, automating lead generation to support platform growth.
- Implemented authentication where needed (NextAuth.js) and integrated analytics APIs to monitor usage, guide content updates, and track user engagement across all projects.
- Optimized for performance, accessibility, and reliability; containerized with Docker and deployed/maintained on DigitalOcean with GitHub for source control.
- Designed full-stack architecture for Breakout Study Tool using React 19, Express/tRPC API, Python/FastAPI data processing, and Supabase/Prisma database in a Turborepo monorepo.
- Delivered real outcomes: built and launched a site for an environmental nonprofit that now actively serves community visitors (example: northcentralohiopollinatorpathway.org), and created a revenue-generating trading education platform that I personally use and maintain in production.

necoTECH **May 2023 - September 2023**
Intern *Delaware, OH*

- **Tracker:** Centralized contract/lead management in a single Google Sheets/Excel pipeline; defined stages & ownership; added Apps Script dedupe/status nudges.
- **Strategy + mentorship:** Co-developed the initial marketing playbook (social, networking, outreach templates) with founders and two mentors, including an experienced entrepreneur who coached me on startup ops, cash flow, and go-to-market.
- **Gov contracts:** Built Python (pandas) scripts to surface/structure government procurement opportunities; cleaned/tagged opportunities and fed prioritized leads into the tracker.
- **Outcome:** Delivered a repeatable, company-wide process for consistent outreach and timely proposal prep, helping the team identify and pursue government contracts and partnerships.

ACADEMIC PROJECTS

- **LLM Energy Benchmark Research (Data Science & NLP, Python):** Built an end-to-end pipeline for measuring energy consumption across LLM models (OpenAI GPT-4o-mini, Groq Llama-3.1-8b, Mistral Large) using CodeCarbon. Implemented streaming data collection from LMSYS Chat 1M dataset, prompt extraction with validation, and multi-API integration with exponential backoff retry logic. Engineered 30+ linguistic features using spaCy, NLTK, and textstat, including syntactic complexity, sentiment, readability, and topic/concept density. Analyzed relationships between prompt characteristics and energy efficiency, developing metrics for tokens-per-second, energy-per-token, and latency analysis; research paper currently in publication process.

- **CS 61B (Data Structures & Algorithms, Java):** Implemented ArrayDeque and LinkedListDeque (circular sentinel), BSTMap, and project features (iterators, equals, toString, resizing). Wrote JUnit tests and analyzed runtime; explored how maps/queues can model basic order-book mechanics.

- **Self-Directed AI/ML Coursework (PyTorch):** Completed practical courses covering tensors & autograd, nn.Module, DataLoaders, training/evaluation loops, overfitting control (regularization/early stopping), and basic model types (MLP/CNN); used NumPy/Pandas for preprocessing and small applied exercises.
- **Supplemental Online Study:** Python & backend fundamentals, plus quantitative topics (stochastic processes, numerical optimization, introductory quantitative finance) with small practice projects.

INDEPENDENT PROJECTS

- **Breakout Study Tool (active):** Built a web app for studying breakout patterns across ~10,000 tickers using *yfinance* and *pandas*, with a Next.js + TypeScript frontend. Scans multiple timeframes (1/5/15 min, 1h, daily, weekly) with dynamic chart overlays, tagging, and up/down pattern classification. Integrated Supabase (Auth + storage) and deployed on DigitalOcean. Used daily for real-time pattern practice and analytics by multiple users. Currently expanding with a live AI Insight System for automated setup detection, performance analytics, and adaptive signal scoring to forecast breakout quality and trader accuracy trends. (breakouts.trade)
- **X (Twitter) Lead Scraper (Python):** Developed an automated Python scraper to identify and rank potential users for the Breakout Study Tool by analyzing posts on breakout trading, technical analysis, and market trends, filtering results by keywords and engagement metrics.
- **Live Intraday Scanner (Thinkorswim + JS):** Wrote a JS pipeline that feeds custom scans into Thinkorswim watchlists for real-time candidates; notably surfaced CLSK ahead of a breakout for discretionary review
- **Cat-vs-Dog Classifier (TensorFlow, local GPU):** Collaboratively trained a CNN on a local GPU to classify images with solid accuracy; managed compute usage (batch sizing/runtime) to run reliably on limited VRAM, giving hands-on experience with GPU workflow basics.

TECHNICAL SKILLS

Languages: Python, Java, C, JavaScript, SQL, HTML/CSS
Frameworks/Libraries: React, Next.js (Router), Node.js, Tailwind CSS, FastAPI, pandas, NumPy, TensorFlow, PyTorch, Recharts, JUnit
Tools & Platforms: Linux, Docker, Git & GitHub (GitHub Actions), SSH, DigitalOcean, Supabase (Auth, Storage), PostgreSQL, Python venv

LEADERSHIP & ACTIVITIES

Founder and President **Student Climate Action Team (SCAT)** **January 2023 - August 2024**

- Founded and led a 10-person team; organized ~30 policy-focused events (~30 attendees on average).
- Partnered with **Sustainable Delaware Ohio** and campus groups to support outreach for a city policy projected to reach ~10,000 households (per city/NGO estimates).
- Built and maintained a lightweight **React** website to centralize resources and sign-ups. Presented initiatives to **City Council**; work received local media coverage.

Eagle Scout **Schultz Elementary Environmental Project (Delaware, OH)** **Oct 2023**

- Coordinated ~100 participants to extend woodland/trail access with signage and trail markers; managed ~$1,000 materials budget and stakeholder approvals (Board of Education, community partners).

Global Scholar Diploma Columbus Council on World Affairs **April 2023**

- Completed seminars and a capstone on environmental policy/economics.

Berkeley Computer Science Association (CSA) Member **August 2025 - Present**

Undergraduate Economics Association (UEA) Member **August 2025 - Present**

LANGUAGES

English: Native
Spanish: Advanced (near-fluent); speaking, reading, writing
Chinese: Conversational; actively studying for professional use

INTERESTS

Interests: Full-stack engineering, data pipelines, applied ML (PyTorch/TensorFlow), market-data tools, climate software, product-led entrepreneurship.