Kyan Cox

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Education

University of Wisconsin - Madison Sep 2023 - May 2027

B.S. Computer Science, Statistics ***GPA: 4.00/4.00*** *(Dean's List)*

Relevant Coursework: Data Structures and Algorithms, Object Oriented Programming (Java), C and Assembly Programming, Deep Learning & Generative Models (PyTorch), Database Management Systems (SQL), Big Data Systems

Experience

Software Engineer Intern June 2025 - Aug 2025

Gemini *New York, NY*

- Built an external **Scala API** integrating with a third-party payment provider to fetch real-time FX rates, powering cross-currency deposits/withdrawals for **500,000+** monthly transacting users.
- Reduced deposit-to-trade friction by ∼**54%** with in-flow **auto FX** (native fiat currency exchange), collapsing a **15 click** manual process to **7 clicks** so EU users can purchase assets immediately.
- Supported Gemini's **first-to-market** launch of the EU's **tokenized asset offering** by redesigning a payment deposit confirmation screen in both **React** & **React Native** to dynamically advertise **100+** tokenized stocks.
- Architected **Scala** REST APIs utilized by internal web dashboards that query and post to **PostgreSQL** tables, used by **40+** engineers **2× per on-call shift** to investigate and resolve incidents.
- Streamlined code redundancy by **95%+** by refactoring on-chain wallet codebase to use a **React** context provider for third-party DeFi integrations, standardizing hooks and state management for maintainability and scalability.

Undergraduate Teaching Assistant / Algorithms Beginning Sep 2025

UW-Madison Computer Sciences Department *Madison, WI*

- Provide academic support to **300+** students through **10+** office hours weekly, answering individual questions and guiding students through problem-solving strategies.
- Host **12** weekly hour-long study sections for groups of **20+** students, reinforcing concepts such as Greedy Algorithms, Divide and Conquer, Dynamic Programming, Network Flow, and NP-Completeness.

Undergraduate Research Assistant Sep 2024 - May 2025

UW–Madison Material Sciences & Engineering *Madison, WI*

- Designed an end-to-end **Python** ML pipeline using **Pandas**, **Scikit-Learn**, & **XGBoost** that predicts individual donation amounts within ≈ **$45** on average, explaining over **60%** of donation behavior for a local food pantry.
- Achieved **3× feature expansion**, growing a raw 5-column donation dataset to **15+** enriched fields (demographics, campaign context, seasonality) through Python web scraping, API integrations, and exploratory analysis.

Intern May 2023 - June 2023

Rye Chamber of Commerce *Rye, NY*

- Simplified a multi-day process of extracting and cleaning data from spreadsheets through **Python** and the **Pandas** library, aiding in the identification of over **200** potential customers, ultimately maximizing funds for events.

Projects

Degree Progress Visualizer | *React, Next.js, FastAPI, AWS (EC2), Node.js, TypeScript*

- Developed a web-app used **180+** times per semester by UW-Madison students to visualize and organize their degree audit reports using **React** and **Next.js**.
- Containerized a **FastAPI** backend with **Docker** to parse PDF reports, and deployed it on **AWS EC2**.

Cryptocurrency Portfolio Tracker | *Python, Flask, SQLite, TypeScript, Pandas, React, Next.js*

- Automated investment tracking for private investors via a **React** and **Next.js** interface, drastically reducing asset allocation time and enabling real-time insights through API development and integrations.
- Built a RESTful **Flask API** with **14** endpoints managing customer data stored in **SQLite**, and generated consolidated asset reports in XLSX format using **Pandas**.

AI Image Authenticity Detector | *Python, PyTorch, Google Colab, NumPy, Matplotlib*

- Benchmarked a baseline **MLP**, a custom two-block **CNN**, and a fine-tuned **ResNet18** on the 120k-image CIFAKE dataset to detect real vs. fake images.
- Boosted test accuracy from 80.6% to **95.6%** by implementing dropout regularization and learning-rate scheduling.

Skills

Languages: Java, Scala, Python, JavaScript, HTML, CSS, TypeScript, SQL, R, C
Technologies: React, Next.js, React Native, Expo, Flask, FastAPI, TailwindCSS, Express.js, Pandas, Scikit-Learn
Development Tools: MongoDB, PostgreSQL, SQLite, AWS, Docker, Node.js, Supabase, Vercel, Git, Postman