Kevin (Kaiwen) Yao

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Education

Queen's University September 2022 – May 2026
Bachelor of Computing (Honours), Major in Artificial Intelligence, Minor in Statistics *Kingston, ON*

- **Cumulative GPA**: 4.28/4.3, Dean's Honour List with Distinction
- **Awards**: Queen's Principals Scholarship (2022), Gordon Canning Award in Mathematics (2023), Investors Group Award (2024), Dean's Award of Excellence (2024), Queen's Appeal Undergraduate Scholarship (2025)

Experience

RBC Borealis (Borealis AI) September 2025 – December 2025
Software Engineer Intern (GenAI Systems) *Toronto, ON*

- Built an automated system in **Streamlit Python** to detect when AI conversations should end in an employee training application, removing the need for any manual intervention and improving reliability.
- Standardized AI model outputs to simplify application logic, cutting error handling and defensive parsing by **50%**.
- Reduced AI inference costs by **50%** by optimizing prompts and enabling cached responses in **OpenAI API** requests.
- Refactored core features into reusable modules and aligned **Pydantic** and **MongoDB** schemas to remove legacy fields and introduce scalable, well-defined data models.

Royal Bank of Canada May 2025 – August 2025
Software Developer Intern (Amplify Program) *Toronto, ON*

- Designed and built a KYC dashboard using **Angular** and **Python** backend to replace legacy systems, reducing onboarding time from **60 to 5** mins by streamlining verification workflows and automating with Agentic AI.
- Engineered an AI document processing pipeline using **Azure services, OpenAI, Postgres** to extract attributes from KYC docs with **95% accuracy**, enabling **100+** RBC analysts to process each KYC document in **<1** minute.
- Delivered more than **$1M+** estimated cost savings and projecting **$30M+** in incremental earnings per refresh cycle by accelerating KYC turnaround and boosting client retention.
- Deployed and tested applications using **Terraform, Docker, GitHub Actions** integrated with OpenShift CI/CD pipelines

CanFocus Inc. April 2024 – August 2024
Fullstack Software Engineer Intern *Markham, ON*

- Engineered a full-stack ADHD clinic platform using **Next.js, Go, and MySQL**, enabling access to care for **800+** users.
- Designed and implemented patient-facing features tailored to ADHD needs, increasing client registrations by **150%**.
- Reduced user registration time by **75%** by streamlining API workflows and eliminating redundant validation.

QMIND & RedBit October 2023 – April 2024
Software Engineer *Kingston, ON*

- Developed a construction contract assistant chatbot in **Python** capable of parsing 10+ gigabytes of PDFs, drawings, spreadsheets, and images, delivering accurate responses in under **30 seconds** to streamline contractor decision-making.
- Integrated **PyMuPDF, Pandas, GPT, TensorFlow, and KerasOCR** pipeline to extract and retrieve contract-critical data.

Projects

Course Planner courseplanner.ca | *ReactJS, NodeJS, ExpressJS, MySQL, AWS*

- Pioneered a **React.js** web application that reduced course planning time from **hours to minutes** by integrating automatic conflict detection and intuitive schedule visualization.
- Achieved **1700+** user sign-ups, capturing **5%** of the target student body within the first 12 hours.
- Built scalable middleware and backend using **ExpressJS** and **AWS RDS**, supporting **10,000+** daily user transactions.

SlideFlow: AI Presentation Assistant | *ReactJS, Tailwind, Flask, Google Cloud Vision API, Sentence-BERT, Redis Storage*

- Awarded **Best Use of Artificial Intelligence** at QHacks 2025, a 36-hour hackathon hosted at Queen's University
- Integrated speech-to-text API and built natural language voice commands using **Sentence Transformers** to navigate slides by content, combining semantic search with image recognition via **Google Cloud Vision API**
- Constructed **React** components and **RestAPI** middleware to parse user intent, route and process API requests, supporting **10+** query types across slide content, text, and visuals.

Technical Skills

Languages: Python, Java, JavaScript, TypeScript, SQL, Go, C/C++
Technologies: React, Next.js, Node.js, Express, FastAPI, PostgreSQL, MySQL, AWS, Azure, Docker, Terraform, OpenShift, Firebase, MongoDB
Concepts: Data Structures & Algorithms, REST APIs, Databases, Testing, CI/CD, Operating Systems, Networking