

Guanwen Yan

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EDUCATION

University of Illinois Urbana-Champaign

Expected: May 2025

Bachelor of Science in Statistics and Computer Science

GPA: 3.83 / 4.00

Relevant Coursework Data Structures, Algorithms, Object Oriented Programming, Discrete Math, Linear Algebra, Database, Applied Machine Learning, Software Design, Computer System

SKILLS

Programming Languages: Java, Python, C++, TypeScript, C, JavaScript, Swift, HTML, CSS, C#, Kotlin, Dart, SQL

Frameworks & Databases: Spring Boot, Node.js, .NET, React, Flask, Angular, Flutter, MySQL, MongoDB, SQLite

Tools & Technologies: AWS, REST APIs, Azure, Google Cloud, Docker, Kafka, Kubernetes, OAuth, Firebase, Git

EXPERIENCE

Software Engineer Intern

May 2024 – August 2024

Corteva Agriscience - Software Engineering

Johnston, IA

- Developed a web application to replace OutSystems for over 100 research facilities, projecting annual savings of over \$100,000 in licensing fees and thousands of work hours in global research operations by simplified workflow
- Saved over \$2 million annually (0.1% R&D cost) by visualizing success rate for potential trials, enabling management to make informed decisions, reducing failed trials, transportation costs, and regulatory expenses
- Implemented backend infrastructure using C#, Azure, MySQL, and .NET, optimizing database queries and API calls to reduce load time by over 22% (from 1000ms to 780ms)
- Built responsive UI components using Angular, HTML5, TypeScript, CSS, and AG Grid for various screen sizes

Software Engineer Intern

May 2023 – August 2023

Corteva Agriscience - Product Development

Remote, US

- Reduced latency by more than 85% (from 10s to 1.2s) for REST API calls by optimizing the automated system that captures and uploads satellite map screenshots using Python, AWS S3, JavaScript, Flask, and Playwright
- Eliminated over 90% of redundant code while maintaining functionality by rebuilding several dynamic satellite maps from scratch using Python, JavaScript, and Mapbox, saving over 72 hours per person on project onboarding
- Reduced 10 to 15% in annual AWS cost through optimized resource utilization, significantly decreasing on-demand compute time for EC2 instances and Lambda functions, while using Datadog for logging and monitoring
- Achieved 99% test coverage while implementing comprehensive unit and integration tests

Software Engineer Intern

February 2022 – May 2022

University of Illinois Urbana-Champaign

Urbana, IL

- Developed an English learning Android App using Android Studio for Costa Rica customs with two professors and five students, empowering officers to effectively assist travelers from diverse backgrounds worldwide
- Resolved more than 35% of bugs using Java and Firebase to enhance user experience and system stability
- Conducted cross-functional team meetings to prioritize tasks and share insights on the implementation plan

PROJECTS

Wikipedia Tracking System with Kafka | *Kafka, MySQL, Java, Spring Boot*

March 2024 – May 2024

- Engineered a high-performance Kafka producer to ingest roughly 10 million daily Wikipedia recent change events
- Developed a Kafka consumer and broker to facilitate real-time storage of millions of events in a MySQL database

Store Inventory management system | *MySQL, GCP, React, JavaScript*

February 2024 – May 2024

- Led a team of four developers to develop a full-stack application to gain insight into store inventory status
- Improved security and scalability by storing data in Google Cloud SQL and deploying the app on Compute Engine

Flights Checker | *C++, Docker, GitHub*

November 2022 – December 2022

- Led a team of four developers to build a C++ program to visualize the shortest flight routes between airports
- Architected a user-friendly interface and optimized build process using CMake for efficient program compilation

E-Commerce Website | *React.js, Node.js, MongoDB, Express.js, Git*

June 2022 – August 2022

- Enhanced security using JSON Web Token and crypto-js, and optimized website interface using Material UI
- Developed a scalable backend server for user authentication, data updates, and other RESTful web services