

# Kennan Wu

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nyook941.github.io/kennan-portfolio/

## Skills

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**Languages:** Java, Typescript/Javascript, HTML/CSS, SQL, Python

**Frameworks and Libraries:** React.js, React Native, ASP.NET Core, Node.js, OpenAPI

**Tools:** Git, AWS, Azure DevOps, Docker, PostgreSQL, JIRA

## Experience

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**Software Engineer Intern**, Rhapsody Health – Frisco, TX May 2023 – August 2023

- Improved the product update process by developing a RESTful API in ASP.NET Core that optimizes customer data handling for speed and simplicity, leading to faster client system updates
- Automated 100% of API deployments in Azure DevOps CI/CD pipelines, integrating CloudFormation stacks written with the C# AWS CDK for enhanced infrastructure reliability and versioning
- Integrated NSwag(OpenAPI) to generate documentation and client code, simplifying integration within the system
- Implemented 100% code coverage with dependency injection, Moq, and NUnit, for reliability and maintainability
- Bolstered security utilizing AWS Secrets Manager and SSM Parameter store for secure data storage and retrieval

**Full Stack Developer**, Hidden Gems – Richardson, TX August 2022 – Present

- Collaborated with Scrum and client teams to develop a TypeScript React Native restaurant mobile app, utilizing Stylesheet and Web Dev Tools for an intuitive UX design
- Leveraged AWS Amplify to manage and create DynamoDB tables, integrating GraphQL APIs via AppSync for database operations, enhancing real-time synchronization and scalability in the app's backend
- Reduced downtime by 50% with a Lambda-based API, parallelizing GCP API calls for faster distance data retrieval
- Optimized image retrieval speed by 30% using database keys linked to images in S3 with CloudFront caching.
- Increased app maintainability and scalability by using Redux for global state management across components.

## Projects

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**Motherboard Inspector**, UTDesign Expo 1st place [shorturl.at/jkoIV](https://shorturl.at/jkoIV)

- Developed Python computer vision software to automate identification and troubleshooting of faulty motherboards
- Increased system accuracy by 20% by implementing backend OCR algorithms using OpenCV and Tesseract
- Designed a PyQt5 UI in collaboration with the client team, leveraging signals and slots for frontend-backend communication, resulting in enhanced application interactivity and responsiveness

**Breast Cancer Research Chatbot**, Professor Sponsored [main-inquisitive-melba-7c1ba5.netlify.app/](https://main-inquisitive-melba-7c1ba5.netlify.app/)

- Created a React.js based platform in collaboration with professor Lakshman for users to upload research papers and engage with a QA chatbot for document-specific inquiries
- Implemented voice-based chatbot interactions using WebSockets to connect user audio inputs with AWS Transcribe
- Built docker containers executed on AWS Lambda via ECS, ensuring cloud scalability and runtime consistency
- Architected a PostgreSQL schema and APIs on AWS RDS to manage user authentication and knowledge bases

## Education and Certifications

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**The University of Texas at Dallas**

MS in Computer Engineering – Applied Machine learning

May 2025

BS in Computer Engineering, GPA: 3.73

May 2024

## Certifications

AWS Cloud Practitioner

September 2023