Muil Yang

Master's candidate in Computer Science (expected May 2026) with over 3 years of experience in software engineering, specializing in complex, scalable web applications, system optimization, and cloud technologies.

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EXPERIENCE

Software Engineer

Midas Software, Inc.
Jan 2021 - May 2024

- Implemented a high-performance 3D model viewer using WebGL enabling real-time manipulation of complex architectural designs, increasing user productivity by 30%

- Designed and integrated a secure, scalable online file-sharing system, supporting multi-format engineering documents up to 10GB

- Drove cross-functional collaboration in API development and frontend implementation by defining RESTful API specifications and developing reusable React components, reducing code duplication by 20%

- Modernized legacy systems with React-based frontend, significantly improving security and enhancing user experience, which led to 50% of the user base transitioning to a more secure and improved service within a quarter

Research Assistant

University of Texas at Arlington
Sep 2019 - May 2020

- Designed and developed a flood monitoring system using an embedded system and web service to monitor flood-prone areas

- Reduced system power consumption by 40% by transitioning from Arduino Mega to Atmel microcontrollers, optimizing hardware selection for efficient computing power

KEY PROJECTS & MILESTONES

Midas Workspace — *Midas Software, Inc.*

Collaborative web app for architectural and civil engineers.
Enables device agnostic sharing and viewing of 3D structural analysis models, with features like model annotations, file sharing, and sub-views for detailed inspections

- Implemented Inverse View Transformation feature to map Camera Coordinate System to World Coordinate System, allowing document attachment to elements like columns and

TECHNICAL SKILLS

Programming Languages
JavaScript/TypeScript, Python, C/C++, Java

Front-end
React.js, Next.js, Node.js, Three.js, Webpack

Back-end
Node.js, Django, Django REST framework, Flask

Database Management
SQL - SQLite, MySQL
NoSQL - MongoDB

DevOps
CI/CD - GitHub Actions
Cloud - AWS, Azure, Naver
IaC - Terraform
Docker, Kubernetes

Technologies
Git, WebSocket, RESTful API

CERTIFICATIONS

AWS Certified
Developer - Associate
Security - Specialty
Machine Learning - Specialty

EDUCATION

University of Texas at Dallas
Master of Science in Computer Science (Expected May 2026)

Korea National Open University
Bachelor of Science in Computer Science, GPA 3.4/4.0

Yonsei University
Bachelor of Science in Civil Engineering, GPA 3.2/4.0

University of Texas at Arlington
Study Abroad, GPA 4.0/4.0

slabs in 3D models

- Integrated recoil.js for streamlined state management and optimized class instance handling, and integrated real-time updates using WebSocket, significantly enhancing application performance by 20%

- Designed a sub-view framework that enables users to seamlessly view related files, such as DWG or IFC, alongside 3D models, improving workflow efficiency and increasing user productivity by 40%

- Utilized Next.js Lazy Loading to optimize initial render by separating non-essential components, reducing bundle size by approximately 10%

Midas Members — *Midas Software, Inc.*

Membership management system designed to streamline user account creation, authentication, and engagement

- Led migration from jQuery to React-based frontend, improving maintainability

- Developed an SSO system with JWT authentication, streamlining login across platforms and boosting workflow efficiency by 50%, while enhancing security and user experience

- Executed phased rollout, transitioning 50% of customers to email-based accounts in first quarter

Nutrition Specs — *Personal*

Web service for comparing nutritional information across multiple products within the same category

- Created a dynamic, user-friendly frontend with Next.js, enabling efficient product comparison

- Implemented a robust backend with Django, managing data and deploying on AWS to leverage cloud services

- Utilized OpenAI API to enhance data processing and comparison capabilities, ensuring accurate nutritional insights

AI Veggie Cat — *Hackathon*

AI-driven food ingredient ordering system leveraging advanced LLM API services

- Designed and implemented a sophisticated prompt engineering pipeline, significantly enhancing response accuracy and relevance for ingredient recommendations

- Developed a scalable, user-friendly interface using Next.js for the frontend, ensuring responsive design and optimal user experience

- Created a robust backend with Flask, facilitating seamless integration between the LLM API and the frontend

- Deployed the entire system on Naver Cloud, optimizing for performance and reliability in a cloud environment

AWARDS

National Merit Scholarship