

Muil Moon Yang

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

EXPERIENCE

Software Engineer

Midas Software, Inc.

Jan 2021 - May 2024

- Implemented a high-performance 3D model viewer using Next.js and a WebGL-based rendering engine, enabling real-time manipulation of complex architectural designs and increasing user productivity by 45%
- Designed and integrated a secure, scalable online file-sharing system, supporting multi-format engineering documents up to 10GB
- Built a RESTful API with Node.js to deliver visualization data, including GIS terrain data
- Designed a CI/CD pipeline using Bitbucket Pipelines to streamline the deployment process, including building Docker images, uploading them to ECR, and redeploying to EC2.
- Modernized legacy systems with React-based frontend, significantly improving security and enhancing user experience, which led to 83% of the user base transitioning to a more secure and improved service within a quarter
- Developed an SSO system with JWT authentication, enabling seamless login across platforms and enhancing security, which improved user experience by 67%

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 45% 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

muilyang12@gmail.com

Dallas, Texas

muilyang12.github.io

linkedin.com/in/muilyang

TECHNICAL SKILLS

Programming Languages

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

Front-end

React.js, Next.js, Node.js, Three.js, Webpack

Back-end

Node.js, Django, Django REST framework, Flask

Database Management

SQL - PostgreSQL, MySQL, SQLite
NoSQL - MongoDB

DevOps

CI/CD - Bitbucket Pipelines
Cloud - AWS, Microsoft Azure, Naver
IaC - Terraform
Docker, Kubernetes

Technologies

Linux, Git, WebSocket, RESTful API

CERTIFICATIONS

AWS Certified Developer - Associate
AWS Certified Security - Specialty
AWS Certified 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*

- Implemented Inverse View Transformation feature to map Camera Coordinate System to World Coordinate System, allowing document attachment to elements like columns and slabs in 3D models
- 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 33%
- Introduced Recoil.js for lightweight state management and efficient handling of class instances, and actively integrated real-time functionality using WebSocket
- Utilized Next.js Lazy Loading to optimize initial render by separating non-essential components, reducing bundle size by 12%

AWARDS

National Merit Scholarship

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, enabling seamless login across platforms

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 (LLM 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