Michael Yoo

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EDUCATION

The George Washington University   2021 - Expected Graduation: 2025
Bachelor of Science in *Computer Science*
Minor in *Data Science*

WORK EXPERIENCE

Student Research Specialist III - George Washington University   09/24 - Present

– Leading the development of a database as the sole technical contributor to catalog images of flags with mourning quotes placed at the Washington Memorial by families affected by COVID-19, providing a lasting resource for researchers and future generations.
– Transcribing and structuring mourning messages into a standardized format using SQL, enhancing the accessibility and long-term preservation of these cultural artifacts for historical research.
– Identifying trends in visual and textual data to inform ongoing studies on public mourning practices, contributing valuable insights into how grief is publicly expressed during the pandemic.
– Providing technical expertise, ensuring the database meets academic research and archival standards, and playing a pivotal role in shaping how this historical data will be used in future studies.
– Collaborating with non-technical team members to translate project needs into practical technical solutions, with contributions highly regarded and influential in shaping project outcomes.

Software Engineering Intern - Corsha   05/24 - 08/24

– Optimized the Corsha automated testing suite by replacing custom methods with standardized tools, resolving 10+ recurring test failures, and improving reliability.
– Increased testing efficiency by implementing environment reuse, saving 40% of testing time, which reduced test cycles and allowed engineers to focus on feature development.
– Integrated Sonarqube for automated code reviews, ensuring early detection of issues and maintaining high code quality standards.
– Utilized Ansible, Kubernetes, and GoLang for deployment automation and testing coverage.

Software Engineering Intern - KnackWorks   05/23 - 08/23

– Improved data accessibility and visualization on the DaaS project using GoLang, Python, Kubernetes, ELK, and Kafka, achieving a 25% faster query response time.
– Deployed Logstash in Kubernetes for PostgreSQL-to-Elasticsearch migration.
– Developed a GoLang service with an AWS S3-compatible storage endpoint, cutting data retrieval times by 15% and optimizing cloud storage efficiency.
– Collaborated with stakeholders in agile sprints, ensuring that technical solutions aligned with project goals and customer needs, demonstrating strong teamwork and communication.

TECHNICAL PROJECTS

Raytheon AVC Competition - C/Python/Computer Vision   Project Portfolio

Participated in the 2024-2025 Raytheon Autonomous Vehicle Competition, developing unmanned aerial vehicles with a focus on visual processing. Collaborated across multidisciplinary teams to meet stakeholder requirements, optimize system performance, and compete at a national level.

Gwack Slack Simulator - Java

Developed a multithreaded client-server chatroom with a custom Java GUI, supporting real-time messaging, member list updates, and dynamic theme switching.

Multi-classification Image Detection - Python/Tensorflow/Machine Learning

Developed a Multi-Output Convolutional Neural Network for simultaneous object detection and classification. Built on MobileNetV2, the model includes a region proposal layer for precise bounding box prediction and a classification layer for categorizing detected objects.