Kase Johnson

kasejohnson01@gmail.com | linkedin.com/in/kase-johnson-02a974205 | https://kasejohnson.com
github.com/Kasej01

EDUCATION

Tennessee Technological University   Cookeville, TN
Master of Science in Computer Science, Artificial Intelligence and Machine Learning   *Jan. 2023 – May 2025*

Tennessee Technological University   Cookeville, TN
Bachelor of Science in Computer Science, Minor in Mathematics   *Aug. 2019 – Dec 2022*

EXPERIENCE

Software Engineer Intern   Sep. 2022 – Present
Tennessee Valley Authority   *Cookeville, TN*
- Contributed to the design, maintenance, and enhancement of enterprise web applications built with Angular, .NET and Microsoft SQL Server.
- Provided break/fix maintenance support and new feature implementation across front-end and backend systems to ensure smooth operation of critical safety and materials applications.
- Managed SQL Server databases: optimizing queries, updating/creating views and stored procedures, and improving maintainability of large scale reporting systems.
- Modernized legacy systems by upgrading .NET versions and NuGet dependencies, successfully migrating legacy applications from .NET 3.1 to 8.0.
- Developed and maintained data-driven reporting solutions, writing complex SQL scripts and integrating them with updated web interfaces for improved analytics and user accessibility.
- Partnered with business stakeholders to enhance applications and reporting tools to ensure accurate tracking, compliance, and streamline site operations.

Undergraduate Teaching Assistant – Database Systems   Aug. 2023 – Dec. 2024
Tennessee Technological University   *Cookeville, TN*
- Supported instruction of advanced database topics, including query optimization, modeling, and normalization.
- Led one-on-one tutoring and peer workshops, reinforcing practical SQL and schema design skills.
- Collaborated with faculty to tailor lesson reviews and supplemental materials for student needs.

Cloud Security Workshop Assistant (NSA-Funded)   June 2023 – July 2023
Tennessee Technological University   *Cookeville, TN*
- Assisted in delivering hands-on instruction on AWS, Azure, and Google Cloud with focus on IAM, database security, and cloud architecture fundamentals.
- Supported participants in deploying secure cloud services and understanding platform-specific best practices.
- Contributed to curriculum development alongside lead professor for multi-platform cloud security training.

PROJECTS

AID3 – AI Failure Detection for 3D Printing | *Python, YOLOv8, PyTorch, TensorFlow, Git* Apr 2024 – Dec 2024
- Developed a real-time failure detection system using YOLO object detection, trained on custom-labeled print failure datasets
- Improved model accuracy via hyperparameter tuning, reducing detection failure rates.
- Automated failure alerts and analytics to minimize material waste.

Java Gaming Server Plugins | *Java, Spigot API, Maven, Git*   May 2024 – Present
- Created custom server side plugins to enhance gaming experience and add new features to the base game.
- All source code available on GitHub.

TECHNICAL SKILLS

Languages: Python, C#, Java, JavaScript, Typescript, HTML/CSS
Frameworks: .NET, Angular, React, TensorFlow
Database Management: Microsoft SQL Server, MySQL, PostgresSQL
Cloud Technologies: AWS, Azure
AI & Machine Learning: Computer Vision, TensorFlow, PyTorch
Developer Tools: Git/GitHub, Cassandra, Visual Studio
Certifications: AWS Certified Cloud Practitioner