

Enze Ge

Software Engineer

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EDUCATION

University of Wisconsin-Madison

Madison, WI

Bachelor of Science in Computer Sciences & Psychology

Sept. 2021 – expected May 2024

- GPA 3.95/4.0, Dean's List Fall 2021, Spring 2022, Spring 2023, Fall 2023
- Courses: Networking, Database System, Operating System, Artificial Intelligence, Computer Engineering, Computer Graphics, Algorithms, Discrete Mathematics, Machine Organization and Programming

HONORS

- Phi Beta Kappa Academic Honor Society
- Government Scholarship of Zhejiang Province

EXPERIENCE

NorthStar Medical Radioisotopes

May 2022 – Apr. 2023

Software Engineer Intern

Madison, WI

- Developed a Visual Studio plugin for code analysis that identifies return values not assigned in function calls, contributed to 10,000+ lines of code, and identified 500+ potential exceptions.
- Created unit tests for Visual Studio plugin and streamlined development and testing processes with team, improving development speeds and functionality.
- Developed an error extractor application using the Roslyn parser to extract and store function names and comments from large C# projects in a local SQLite database, resulting in 400+ stored error information from repositories
- Participated in developing features for a new programming language compiler, contributing ideas based on team collaboration principles and assisting in feature implementation.
- Developed a Network Simulator tool using TCP/IP knowledge to aid in debugging network distribution and packet reception issues.
- Created a workflow diagram display and debugging tool for real-time model display using the WPF framework, improving internal development and customer understanding of the product workflow.

PROJECTS

Network Intrusion Detection System | *Pytorch, Docker, Python*

Dec. 2023 – Dec. 2023

- Demonstrated proficiency in Machine Learning and Deep Learning, successfully conducting multiple experiments using different models and classification settings, such as Binary and Multiclass classification with sklearn's DecisionTreeClassifier and Neural Network MLP classes.
- Skilled in complex data management and preprocessing techniques, utilizing Python libraries like Sklearn and Pytorch to define, train, and refine models, as well as successfully manipulating dataset structures to improve model performance.
- Expert in performance evaluation and results interpretation, adept at formulating and implementing diverse metrics and strategies, such as hyperparameter tuning to enhance the efficiency and accuracy of the models.
- Extended knowledge in modern deep learning libraries, notably PyTorch, successfully implementing a custom training loop for model training and validation, and managing the model saving and loading, emphasizing resource efficiency.

The Minirel HeapFile Manager | *C, Database*

Nov. 2023 – Nov. 2023

- Successfully developed a comprehensive File Manager for Heap Files. This system enables efficient management and manipulation of data by establishing a logical order on pages via a linked list. This ensures that data access, search and retrieval are more manageable and effective, significantly enhancing the performance of operations carried out on the database.
- Implemented advanced features such as providing a scan mechanism that allows for an intricate search through a heap file. This feature satisfies specific search predicates and supports multiple scenarios - retrieving all records from a file, selectively retrieving records that match a certain criterion, and deleting specific records in a file. Additionally, a robust system for record insertion was built, significantly improving the flexibility and functionality of the record management system.

Movie Static Website | *HTML/CSS/JS, Bootstrap*

Nov. 2020 – Dec. 2020

- Used several libraries to implement this application, such as anime.js, Bootstrap, jQuery, etc.
- Implemented in a modern design and used Awesome font to give an aesthetic feeling to the website.

TECHNICAL SKILLS

Programming Languages: C/C++, C#, Java, Python, TypeScript, Swift, HTML/CSS/JS, R, PHP, SQL, Assembly

Developer Tools: Git, Google Cloud Platform, VS Code, Visual Studio, PyCharm, IntelliJ, Eclipse

Computer Skills: Web development via frameworks (e.g. Vue.js, React, React Native, Spring etc.) Desktop software and app development using QT designer and Android Studio. Cybersecurity understanding related to SQL injection and Binary Security. Backend development using frameworks like Flask or Java Spring. .NET framework.