Nicholas Erickson

815-905-8433 | nickerickson373@gmail.com | nickerick.com | github.com/nickerick

EDUCATION

Iowa State University — Ames, Iowa
Bachelor of Science in Software Engineering — Aug. 2021 - May 2024
GPA: 3.69

Rock Valley College — Rockford, Illinois
Dual Credit Program Earning 41 Credits — Aug. 2019 - May 2021
GPA: 3.93

TECHNICAL SKILLS

Programming Languages: Java, C#, JavaScript, HTML, CSS, TypeScript, Python
Frameworks and Databases: ASP.NET, SQL, Angular, NoSQL, MongoDB, Express.js
Tools: Git, AWS (Lambda, S3), Postman, Microsoft SQL Server, Azure DevOps

WORK EXPERIENCE

Software Engineer Intern — Ames, Iowa
TMC Transportation — May. 2022 - Present
- Developed an in-house web app that allowed the cybersecurity team to upload and track various security metrics.
- Web app was built into the existing TMS using the ASP.NET MVC Core stack and JavaScript.
- Created multiple AWS Lambda functions that automatically pulled the various security data into a database.
- Designed our SQL database schema and guided data analyst teammates how to query the database from Power BI.
- Collaborated in a team of 5 interns using Agile methodology on an Azure DevOps Board.

PROJECTS

Maze It
- Desktop application that scans in hand-drawn mazes through a live camera and displays the solutions on screen.
- Developed maze processing and GUI with Python and Tkinter and programmed ESP-32 microcontroller in C.
- Broadcasted ESP-32 live camera feed to a webpage and grabbed the stream of still images from it using Python.
- Parsed individual maze blocks and stored respective values (empty or filled) into a graph data structure.
- Ran Djikstra's pathfinding algorithm against the maze graph and output the virtual solution of the maze to the user.

Vocal Galactic
- Space game developed with Java that utilizes AssemblyAI API with Java & Node.js.
- Implemented ability to activate power ups in game by parsing speech to text input.
- Created GUI and graphics with the Swing library.
- Won best Space Hack at K-State Hackathon 2021 against 37 other teams.

To-Do List
- Engineered a to-do list web application with user profiles functionality using the MEAN tech stack.
- Utilized Angular to build out a basic to-do list app that could read and write from a local JSON file.
- Refactored data storage by creating a MongoDB schema and building a REST API backend with Express.
- Implemented user profiles and page authentication by storing cookies to the browser.

ACTIVITIES

Computer Science and Software Engineering Club, Member — Aug. 2021 - Present