Michael Novotny

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EDUCATION

Marshall University   Huntington, WV
Bachelor of Science in Computer Science   *December 2023*

EXPERIENCE

Database Systems Manager   December 2024 – Present
Mount Pleasant Police Department   *Mount Pleasant, SC*
- Coordinate with vendors to develop solutions and fix bugs
- Write efficient SQL queries to answer questions with data
- Create python scripts to automate office tasks and ingest data

Application Developer   January 2024 – October 2024
TC Energy   *South Charleston, WV (remote)*
- Integrated a react application into an angular application
- Ingested GIS data and created custom datasets to be indexed on many different fields
- Refactored critical AWS Lambdas to use Golang instead of TypeScript

Application Developer Intern   May 2023 – December 2023
TC Energy   *South Charleston, WV (remote)*
- Led UI overhaul of GIS-based React web app, enhancing user interface and receiving positive feedback
- Engineered a custom floating window manager for the UI overhaul, enhancing interactivity and user control of the application layout
- Implemented live notifications and customizable saved views, boosting user engagement and collaboration
- Developed modular, efficient React components for improved maintainability and development speed

Dryland Ecology Laboratory Computer Programmer   July 2022 – October 2022
Marshall University   *Huntington, WV*
- Maintained a dryland ecology simulation software written in C
- Implemented new wildfire probability model based on latest mathematical models
- Tracked issues on GitHub using projects

PROJECTS

GroupMe Bot | *Python, Flask, PostgreSQL, Git, Heroku*   Completed
- Developed a backend application serving a REST API to interact with users and perform helpful functions in a GroupMe group message
- Implemented consumption of multiple APIs to send out a helpful daily message

mrandom Node Package | *TypeScript, Node.js, Git*   Completed
- Developed a fully typed TypeScript package, 'mrandom', replicating Python's random library functionality
- Focused on creating a user-friendly interface for developers familiar with Python's random library, facilitating ease of transition and usage in Node.js environments

Virtual Reality 4D Visualizer | *TypeScript, Node.js, Three.js, Git/GitHub*   Completed
- Engineered a web-based VR application for visualizing 4D objects, leveraging advanced 3D graphics and linear algebra concepts
- Designed to provide students with an intuitive understanding of 4D spaces
- Implemented interactive features allowing users to explore 3D slices of 4D objects

TECHNICAL SKILLS

Languages: TypeScript, JavaScript, Java, Python, C, C++, Golang, SQL (Postgres), HTML/CSS
Frameworks: React, Node.js, Flask, Django, Echo, Express
Developer Tools: AWS, Git/GitHub, Heroku, VS Code, Visual Studio, Eclipse, Linux
Human Languages: English (native), German (business proficient)