Brendan Deneen
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EDUCATION

Binghamton University, State University of New York, Thomas J. Watson College of Engineering and Applied Science
Bachelor of Science in Computer Science **August 2021 – August 2024**
Cumulative GPA: 3.966 / 4.000 | NYS STEM Scholarship | **Dean's List:** Fall 2021 – Spring 2024 | *Summa Cum Laude*
Relevant Coursework: Objects & Data Structures, Design & Analysis of Algorithms, Operating Systems, Programming Languages, High-Performance Computing, Database Systems, Intro to Computer Security, Intro to Artificial Intelligence

TECHNICAL SKILLS

Languages: Python, Java, C/C++, JavaScript, Bash, HTML, CSS, SQL, CUDA Toolkit, Processing, UML
Technologies: Vue.js, Node.js, NPM, GitHub, API, JSON, MySQL, SQLite, MongoDB, IndexedDB, Datadog, Linux Terminal/Tools, Windows, Oracle VM VirtualBox

PROJECT EXPERIENCE

WorkSort, *Full-stack Web Developer* | Massapequa, NY **October 2024 – Present**
- Designed a single-page Vue.js web application enabling candidates to bookmark, search, and sort job applications
- Developed a scalable IndexedDB backend to store and perform database operations on user-defined job data, seamlessly integrating job data into a reactive Vue.js frontend complete with user-defined tables, tags, and querying capabilities
- Deployed the application through GitHub Pages after building for production using NPM and Vite, continuously testing the application in various scenarios to improve user experience in future deployments

Forage, Walmart USA Virtual Experience, *Software Engineer* | Massapequa, NY **July 2024 – August 2024**
- Completed the Advanced Software Engineering Job Simulation, solving difficult technical problems for four Walmart teams
- Designed entity-relationship diagram according to specifications; acquired UML skills while designing a Java class
- Utilized SQLite and CSV Python libraries to process and insert spreadsheet data into a preexisting database schema

Sliding Puzzle, *Game Developer* | Massapequa, NY **May 2024 – September 2024**
- Developed an interactive sliding puzzle game coded in Java using the Processing sketchbook for a personal project
- Implemented a user interface, detection/reshuffling of impossible starting configurations, high score saving/loading, color schemes, button frameworks, error handling, and replay viewing in 1,800 lines of code and 65 GitHub commits
- Published five release versions, detailing installation instructions and troubleshooting tips for Windows, Linux and macOS

HackBU Hackathon, *Software Developer* | Binghamton, NY **February 2023**
- Competed in the annual HackBU Hackathon, collaborating with another programmer to design a Java program that provides weather forecasts along a driving route
- Executed OpenWeather API calls to make temperature and weather forecasts in three-hour intervals for a list of evenly spaced coordinates along the route, supplied by my teammate's code and Google Maps API
- Won "Best Building a Better Future Hack Sponsored by Raymond Corporation" in competition against 40 other teams

Final Research Paper, *AI Researcher* | Binghamton, NY **September 2022 – December 2022**
- Conducted research on GPT-3 and MT-NLG, two monolithic natural language processors built on the transformer architecture
- Delineated the technical details of the pretraining and fine-tuning processes while also examining the social implications of implicit bias
- Concluded that, although MT-NLG outperforms GPT-3 on benchmark tests, both language models must be adequately fine-tuned to counteract biased responses

LEADERSHIP EXPERIENCE

Binghamton University, Computer Science Dept., *Course Assistant* | Binghamton, NY **August 2023 – December 2023**
- Administered and facilitated an activity section for Architecture from a Programmer's Perspective in collaboration with a Teaching Assistant
- Guided lab activity by answering students' questions about Linux, C and x86 assembly; sharpened time-management, science communication, and troubleshooting abilities
- Engineered assignment solutions, fixed errors, and helped to implement a reference library for a class of over 80 students