

## Brendan Deneen

Massapequa, NY | brendandeneen9@gmail.com | github.com/bd2720

### EDUCATION

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**Binghamton University, State University of New York, Thomas J. Watson College of Engineering and Applied Science**

*Bachelor of Science in Computer Science*

**August 2024**

**Cumulative GPA:** 3.966 /4.000 | NYS STEM Scholarship | **Dean's List:** Fall 2021 – Spring 2024

**Relevant Coursework:** Programming with Objects & Data Structures, Design & Analysis of Algorithms, Operating Systems, High-Performance Computing, Database Systems, Intro to Computer Security, Intro to Artificial Intelligence

### TECHNICAL SKILLS

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**Languages:** C/C++, Java, Python, Swift, JavaScript, HTML, CSS, SQL, CUDA Toolkit, Processing, UML

**Software and OS:** Linux Terminal, Vim, Microsoft Visual Studio, Jupyter Notebook, Eclipse IDE, Windows 10, Linux, WSL2, Oracle VM VirtualBox, Google Workspace, MS Office Suite, GitHub, SQLite, JSON

### PROFESSIONAL EXPERIENCE

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**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; 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

### PROJECT EXPERIENCE

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**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 – Present**

- 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

### WORK EXPERIENCE

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**Stop & Shop, Frozen Food Clerk** | Amityville, NY

**May 2021 - August 2021**

- Developed valuable cooperative and professional skills while unpacking and relocating frozen food products
- Acquired crucial communication skills and self-reliance by reporting to a supervisor, following safety protocol and managing deadlines
- Directed customers to desired aisles during the remodeling process and answered questions about prices, product locations, and store promotions, honing my efficient communication skills