# **Spencer Mines**

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#### **EDUCATION**

#### Binghamton University, SUNY | School of Computing

Bachelor of Science in Computer Science

Expected Spring 2025

**Relevant Coursework:** High Performance Computing, Discrete Mathematics, Computer Vision, Operating Systems, Linear Algebra, Software Engineering, Design Patterns

#### TECHNICAL SKILLS

Java | Next.js | Python | C++ | SQL | Linux | Databases | Data Structures | GitHub | Debugging | Software Engineering

#### WORK EXPERIENCE

Dickinson Area Office Binghamton, NY

Front Desk Position

September 2021 - Present

- Maintained and organized keys for residents of the Dickinson Community at Binghamton University
- Answered phone calls from students and parents concerning questions or problems about residential life

#### McCaffrey's Food Market

New Hope, PA

Cashier

June 2022 – January 2025

- Managed financial transactions and processed customer payments to execute the sale of goods in an efficient manner
- Recognized for exceptional customer service and consistently exceeding customer satisfaction goals

## **TECHNICAL EXPERIENCE**

### **Software Development and Systems**

- Proficient in Java, Python, C++, and SQL with experience in full-stack development
- Strong foundation in data structures (lists, stacks, queues, trees, heaps, hash tables) and algorithm design
- Skilled in memory management, instruction set architecture, and cache optimization

### **Artificial Intelligence and Machine Learning**

- Studied AI agent design, search algorithms, knowledge representation, and planning techniques
- Gained hands-on experience with natural language processing, computer vision, and robotics
- Implemented Markov Decision Processes (MDPs), Q-learning agents, and Expectimax-based AI in adversarial games

## **PROJECT EXPERIENCE**

College Housing Platform | Technologies: Python, Node.js, React.js

January 2025 - Present

- Developed a platform to streamline the housing and roommate search process for college students, providing an all-in-one solution for listings and roommate connections
- Implemented an intuitive user interface featuring an interactive map, enabling users to explore housing options by location, price, and amenities

Portfolio Website | Technologies: Next.js, TypeScript, TailwindCSS

March 2025 - Present

- Designed and developed a responsive portfolio website to showcase projects and skills
- · Implemented interactive UI elements and animations to enhance user experience and engagement

Exoplanet Database | Technologies: Python, SQL/Databases

October 2024 – December 2024

- Developed a Flask-based web application to display, search, and explore a database of exoplanets with pagination and detailed views for each planet
- Designed and implemented an SQLite database schema to store exoplanet information, including discovery details, host star data, and image URLs

#### **Ideal Glycemic Control in Type 1 Diabetics** | Watson College of Engineering

January 2023 – May 2023

- Authored a comprehensive research paper on improving glycemic control in Type 1 Diabetics
- Analyzed and compared two prominent control algorithms, specifically focusing on model predictive control and proportional integral derivative

#### **ACTIVITIES**

#### **JDRF Participant Advisory Council**

Binghamton, NY

March 2024 - Present

 Championed broader awareness and education of Type 1 Diabetes, galvanizing support for groundbreaking research, and fostering a deeper understanding of life as a Type 1 Diabetic

# Centenary United Methodist Church

Lambertville, NJ

Volunteer

*April* 2023 – *August* 2023

 Dedicated volunteer work at the soup kitchen, providing essential support to individuals facing food insecurity within the community