# **Corey Johnsen**

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## **EDUCATION**

University of Wisconsin Madison - Madison, WI

Bachelor of Science in the College of Letters and Sciences

Majors: Computer Science and Statistics

- Coursework: Algorithms (Honors), Al/ML, Neural Networks, Data Science, Discrete Mathematics, Al Ethics, OS
- Honors: GE Star Scholarship, Dean's List (Fall 2021-Spring 2023), Robert C. Hughes Scholarship
- Activities: Badgerloop (Website Team Lead, Software Member), Al Club

# **TECHNICAL SKILLS**

- Languages: Java, Python, Javascript, R, Bash, C, C#, HTML/CSS, SQL
- Software: Docker, Linux, Git, PyTorch, Visual Studio, Postman, R Studio, Microsoft SSMS, Unity, Spring Boot, Express.js, Node.js, React.js, .NET

#### **EXPERIENCE**

GE Healthcare - Waukesha, Wisconsin

May 2023 - Present

August 2021 - May 2025

**Cumulative GPA**: 4.00/4.00

Software Intern - Edison Engineering Development Program

- Spearhead the design and development of a Node/Express based web dashboard used daily by 50+ employees to automate reporting of sanity test results from Computed Tomography (CT) scanners
- Develop a Spring Boot microservice to allow users to upload files to specific categories and process the data with Python and Bash scripts via an API and deploy the service with Docker
- Lead design reviews with members of the team and provide detailed documentation for all software developed to ensure maintainability
- Create a technical presentation to outline the design, implementation, and results of the project and present to 100+ colleagues

Direct Supply - Milwaukee, Wisconsin

May 2022 - April 2023

Software Engineering Intern

- Collaborated with an agile team of six software engineers to plan and execute on 2 week sprint intervals, presenting completed work to a cross functional group of 200+ business stakeholders
- Engaged with experienced engineers to develop new features, maintain automated tests suites, and fix system resiliency items for a SaaS platform (web & mobile) used in over 4,000 senior living facilities across the country to serve over 2.2 million seniors
- Contributed more than 15,000 lines of code to the production codebase as a full stack developer and deployed to production servers with Octopus Deploy, utilizing React, SQL, and C#

## **PROJECTS**

Deep Learning July 2023 - Present

- Implement the LeNet and ResNet architectures in PyTorch and train models to classify images of moles as benign or malignant with a maximum test accuracy of ~85%
- Create and train a convolutional neural network on Google's "Quick, Draw!" dataset to categorize a drawing into one of 345 categories and allow the user to see the network's prediction in real time as they draw

# **Genetic Algorithms** (genetic.johnsencorey.com)

June 2023 - July 2023

- Designed and implemented a genetic algorithm to find the most efficient path from a start position to a goal position in a grid based simulation using two different types of agent genomes (explicit moves and neural networks)
- Produced a genetic algorithm to rapidly generate a solution to the knapsack problem that is sufficiently close to the optimal solution

PC Part Price Tracker February 2023 - March 2023

- Built an application in Python that uses web scraping with BeautifulSoup to monitor the price of a desired PC part and notify the user via email when the price drops below a set threshold, resulting in the purchase of a part at a 30% discount
- Developed the ability to automatically save price results to a CSV file in order to track price trends over time and recommend the best purchase time based on historical data