

Gavin Swartz

Springfield, NE | (402) 378-4948 | gvndswartz@gmail.com

EDUCATION

University of Nebraska-Lincoln | Lincoln, NE
Bachelor of Science in Computer Science
Minor in Geography

Expected Graduation: May 2026

Hanyang University | Seoul, South Korea
Studied Computer Networking

Attended: July 2023

EXPERIENCE

Nebraska Department of Transportation | Lincoln, NE
GIS Specialist Intern

August 2024 to Present

- Develop Geographic Information System files and databases by utilizing right-of-way plan sheets to input accurate and detailed data.
- Research and locate existing right-of-way plans by examining the state's database and records.
- Collaborate with NDOT Right Of Way designers to ensure completeness and accuracy before entry.
- Analyze relevant maps to identify discrepancies and correct errors in the GIS database.

SKILLS

Programming Languages: Java, Python, C, Assembly (x86, ARM), C#, JavaScript, HTML5, CSS3

IDEs: Eclipse, VS Code, PyCharm, Visual Studio

Systems: Microsoft Windows, Linux

Technologies: Microsoft Office Suite, Git, ArcGIS Pro

PROJECTS

Nature Trip Planner

Full-Stack Web Application

February 2025 - Present

- Created a full-stack web application for National Park trip planning, utilizing React, Java Spring Boot, and MySQL in a three-tier architecture.
- Designed functionalities enabling users to search for parks by name, region, designation, and distance along with algorithms to filter parks based on user preferences in activities, weather, and other attributes.
- Implemented RESTful API integrations with the National Park Service, OSRM, and Geoapify Geocoding APIs to retrieve and display park and location information.
- Engineered a robust database management system to manage and update park and user information.

Raspberry Pi Combination Lock

November 2024 to December 2024

Raspberry Pi Hardware Controller and Software

- Collaborated with a partner to design and implement a combination lock using a Raspberry Pi Pico hardware kit, ensuring it met specific project requirements.
- Developed the combination lock logic and display functions using C, ensuring accurate and responsive performance.
- Programmed the control system to rotate a servomotor based on the lock's state, integrated a rotary encoder for input, and implemented LED indicators to signal the lock's status.

Burn Plan Evaluator

November 2022 to December 2022

Java Software Application

- Worked with a team to create a Java program which analyzes planned burn conditions.
- Utilized OpenWeatherConnector API to gather weather conditions.
- Tested this software using JUnit testing to identify bugs.