

Franklin Wohnoutka

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EDUCATION

Drake University, Des Moines, IA

GPA: 3.82 | Dean's List | Expected Graduation: May 2027

Bachelor of Science in Data Analytics, Mathematics, Computer Science

Minor in Physics

TECHNICAL SKILLS

Languages: Python, Java, SQL, R, SAS, C

Frameworks: PyTorch, TensorFlow (AlexNet, ResNet, VGGNet)

Tools & Software: Git, Microsoft Office, MySQL, AWS (EC2, S3, RDS, Flask, Kinesis), Azure

Concepts: Object-Oriented Programming, Machine Learning, Database Design, Data Visualization, Multivariate Calculus

RELEVANT EXPERIENCE

Tutor

Drake University Mathematics & Computer Science Tutoring Lab, Des Moines, IA

November/2025 – Present

- Provide lab style tutoring to students in a range Mathematics and Computer Science courses
- Support student understanding through problem solving strategies and examples rather than giving direct answers
- Update professors on student progress and identify areas where additional support may be needed

Research Assistant

M.I.S.S.F.I.T (Magno-Ionized Space Sheild for Interplanetary Travel), Des Moines, IA

May/2025 - Present

- Code and run simulations for student-based NASA funded research project run through Drake University
- Utilize Git for version control and collaborative development within a team environment
- Analyze and graph simulation results to present progress at weekly meetings
- Collect and process data on different heavy nuclei from CRIS and ACE satellite data repositories

Volunteer Tutor, Treasurer

Math Motivators, Des Moines, IA

September/2024 - Present

- Provide tutoring services to support student growth in the Des Moines Public Schools District
- Recruit new club members through activity fairs, class presentations, etc.
- Manage club finances, coordinate budget for events and new tutoring supplies

PROJECTS

Immigration Enforcement Simulation using NetLogo

January/2026- January/2026

- Created a sophisticated simulation in net logo modeling fear and crime rates in communities
- Executed extensive data analysis on model and presented findings

Battle Simulator in Java

April/2025-May/2025

- Engineered an interactive battle simulator applying OOP principles, including inheritance and polymorphism
- Implemented 2 interfaces and created 12 distinct class files for character and weapon abilities.
- Developed comprehensive unit tests to ensure code functionality

Machine Learning Image Categorization

November/2024-December/2024

- Trained AlexNet, ResNet, and VGGNet models on a dataset of 1352 images of birds (25 different species)
- Used data normalization and fine-tuning with a confusion matrix achieving 98.4% accuracy with AlexNet

EXTRACURRICULAR ACTIVITIES

Member, Wallin Scholars, Minneapolis MN

August/2023-Present

Member, Drake Baseball Club, Des Moines, IA

September/2023 –Present

Mentee, Vermeer Digital Bulldogs, Des Moines, IA

January/2025 - Present

Secretary, Society of Physics Students, Des Moines, IA

February/2025- Present