

EDUCATION

University of Wisconsin-Madison

B.S. Degree, Computer Science | GPA: 3.6 | May 2026

Certificates: Data Science, Entrepreneurship

IES Vienna - Business, Economics, & International Relations

Study Abroad | Spring 2025

WORK HISTORY

Data Analytics Intern

May 2025 - Aug 2025

M3 Insurance | Madison, WI

- Created a custom react based application focused on property risk and financial trend forecasting, increasing risk prediction accuracy by 12.5% and optimized SQL query load performance by 15%, ultimately saving an estimated \$500 monthly.
- Developed live sales dashboards in Tableau saving employees on average 5 hours weekly via automation and data pipelines.
- Presented project applications to executive leadership resulting in greenlight for daily company wide use of products today.

Software Engineer Intern

May 2024 - Aug 2024

Nelnet | Madison, WI

- Improved in-house student loan application interface load times by 18% through streamlined angular UI interactions and optimized API calls, supporting over 7,000 employees and significantly improving daily company operational efficiency.
- Improved SQL Server performance by 9.2% through optimizing bottlenecks resulting in 14% report generation reduction time.

Information Technology Intern

Aug 2021 - Jan 2024

Cardinal Glass Industries | Tomah, WI

- Contributed to the installment of a \$3.2 million server expansion project by provisioning servers, performing pre-deployment diagnostics, and validating overall system performance which led to a smooth and successful server upgrade transition.
- Built and maintained SQL integrated Java applications for item lookups cutting inventory search time by an estimated 40%.

PROJECT HISTORY

Portfolio Website | React Application

Aug 2025 - Present

Personal Project

- Developed a full-stack interactive web application featuring 45+ React components and 12,000+ lines of TypeScript code, integrating Firebase real-time database, TensorFlow.js machine learning models, and modern cryptographic algorithms.
- Implemented OCR text extraction using Tesseract.js and PDF.js to process handwritten notes and PDFs, with TensorFlow.js for pattern recognition and training data management. Improvements currently 70-100% ML-powered OCR confidence scoring.

Class Group Designator | Python Project

Jan 2024 - Present

Contractor Project

- Contracted by UW-Madison Business School to build an automated team formation tool that processes student survey data and generates optimally balanced groups using composite scoring algorithms through python tkinter and pandas.
- Eliminates professor manual workload by 20-25 hours per semester while supporting proper distribution of 100+ students.

PORTFOLIO WEBSITE

<https://ee-portal-bice.vercel.app/>

GITHUB

<https://github.com/Eric-Erdman>

SKILLS & CERTIFICATIONS

Programming Languages & Frameworks

Python, Java, C, SQL

React.js, Node.js

Data Visualization Tools

Tableau, Power BI, Snowflake

Microsoft Power BI Certification

New Horizons

NOTABLE COURSEWORK

CS 577, Introduction to Algorithms

Basic paradigms for the design and analysis of efficient algorithms: greed, divide-and-conquer, dynamic programming, reductions, and the use of randomness.

CS 544, Big Data Systems

Deployed and used distributed systems to store and analyze datasets. Experienced various query languages, processed streaming data, and trained machine learning models.