Emma Hoffmann

erhoffmann128@gmail.com | 763-310-6358 | linkedin.com/in/emmarhoffmann
https://emmarhoffmann.github.io/portfolio/ | github.com/emmarhoffmann

EDUCATION

St. Cloud State University — St. Cloud, MN
Bachelor of Science in Computer Science — May 2025

- **4.0 GPA** | Dean's List | Awarded **$8,000+** scholarships by SCSU for academic excellence and leadership

TECHNICAL SKILLS

Languages: Python, C++, C, C#, Java, R, JavaScript, HTML, CSS, SQL
Tools: GitHub, VS Code, Docker, MongoDB, PostgreSQL, Google Cloud, Unity, Figma, Windows, MacOS, Linux
Relevant Coursework: Data Structures & Algorithms, Programming Language Concepts, Operating Systems, Distributed Systems, Software Systems, Database Theory & Design, Artificial Intelligence, Expert Systems, Data Mining

EXPERIENCE

Lakeline Design, LLC — Cambridge, MN
Business Owner, Digital Artist and Designer, Technical Lead — Mar 2020 – Present

- Executed entire business operations: artwork creation, e-commerce platform administration, order fulfillment, and customer support, achieving over **3,000 sales**, **300+** custom orders, and over **400** positive reviews
- Co-developed a custom **Shopify app** with **Python**, utilizing **API** integration to automate product management, and implemented an extensive system for automated product image creation, achieving up to **98%** time savings, **100%** conversion rate increase, and significantly enhancing overall customer experience
- Reduced bounce rate by **40%** through extensive code development and e-commerce enhancements

PROJECTS

StyleSyncAI: Beauty & Fashion Analysis & Recommendation System — Oct 2024 – Present

- System built with **React** using **TensorFlow**, **OpenCV**, **MediaPipe**, **NumPy**, and **Pandas** to analyze body proportions, facial features, and color harmony for personalized style recommendations and insights

Skinform: Pore-Clogging Ingredient Checker — Sept – Nov 2024

- Developed a skincare analysis tool allowing users to identify pore-clogging ingredients in over **5,000** skincare, makeup, and body products using **Python**, **MongoDB**, and **React**
- Built a product database using **BeautifulSoup** to **web scrape** product information from Sephora, integrating the **OpenAI API** to analyze correctness of collected ingredient lists
- Launched live on Vercel with user-friendly design, allowing product search or custom ingredient checks

StarSort: Machine Learning Classification for Star Types — Oct – Nov 2024

- Developed a **Python** machine learning model using **Neural Networks**, **Random Forest**, **SVM**, **Naive Bayes**, and **Decision Tree** algorithms in **scikit-learn**, achieving up to **100% accuracy**
- Analyzed performance with confusion matrices and feature importance for classification accuracy insights

Comparative Analysis of Sorting Algorithm Efficiency in C++, Java, and Python — Jan – May 2024

- Conducted in-depth analysis of **5** algorithms in **3** languages, assessing performance over datasets ranging from **1,000** to **100,000** elements to determine the impact of programming languages on efficiency
- Utilized precise timing functions and rigorous testing procedures to ensure accurate results, leading to insights that underscore the critical role of language choice in computational tasks

Movie Night Application — Mar – Apr 2024

- Engineered an interactive **Qt** application for movie selection, incorporating a responsive **QML** user interface, efficient stack data structures, and robust **C++** backend functionality
- Led a **3-member** team using **Git** and **GitHub** for version control and **CI/CD** implementations, enabling seamless collaboration, facilitating automation, and ensuring code quality and operational efficiency

ACTIVITIES & ACHIEVEMENTS

- SCSU Computer Science Club — Aug 2023 – Present
- Fink Scholarship Fund, **1 of 5** in MN awarded **$25,000/yr** for extraordinary accomplishments — Feb 2023
- Women Who Code & Women's Center for Entrepreneurship — Sept 2022 – Present