Marko Tsymbaliuk

Gettysburg, PA • +12232551407 • tsymma01@gettysburg.edu • LinkedIn • GitHub • Portfolio

EDUCATION

Gettysburg College Gettysburg, PA
Bachelor of Science in Computer Science, Minor in Economics Fall 2026
GPA: 3.7
Relevant coursework: CodePath Intermediate Technical Interview Prep (Advanced), Discrete Mathematics, Linear Algebra, Introduction to Computer Science, Object-Oriented Programming, UI/UX Design, Data Structures and Algorithms

SKILLS & CERTIFICATIONS

Programming: Java, Python, JavaScript, TypeScript, R, SQL
Tools: React Native, React, Node.js, Firebase, Git/GitHub, Spring, Spring Boot, FastAPI, PostgreSQL, Tailwind CSS, TensorFlow, Keras, Scikit-learn, Electron

RELEVANT EXPERIENCE

Gettysburg College - Computer Science Teaching Assistant (TA)| Gettysburg, PA Fall 2023 – Spring 2024

- Assisted students with Python programming, improving grades by **25%** through review sessions and one-on-one help.
- Improved understanding of **Object-Oriented Programming (OOP)**, boosting assignment and project completion.
- Supported course management and student engagement, leading to positive feedback from **95%** of students.

PROJECTS

Spamurai - Full Stack Developer | Independent Project GitHub | Website | Live Demo |Chrome Web Store

- Built a **Chrome extension** that enhances **Gmail**'s spam filtering with **94% detection accuracy**, powered by a custom **LSTM model** (GitHub) trained on a **200,000-email dataset** from Kaggle.
- Developed a full-stack solution combining **React** and **FastAPI**, processing **hundreds of emails daily** with **sub-200ms** response times through optimized database queries and real-time analysis.
- Designed a modern landing page (GitHub) that increased installs by **175%** and achieved **85% user retention**, using **React**, **Vite**, **Tailwind CSS**, and responsive design.
- Implemented secure **OAuth 2.0** authentication and a privacy-conscious analytics dashboard with Recharts, providing comprehensive spam statistics and threat assessment.
- Deployed on AWS with **EC2**, **RDS**, and **Route 53**, maintaining **99.9% uptime** and scaling to support **1,000+ concurrent users**.
  Utilized: *React, Vite, FastAPI, PostgreSQL, AWS (EC2, RDS, Route 53), OAuth 2.0, Chrome Extension API, TailwindCSS, Recharts, LSTM Neural Networks, Python, TypeScript, Nginx, TensorFlow, Keras, Scikit-learn*

Dermafyr - Full Stack Developer |**Best of Show Winner YCP Hacks '24** | Team of 4 GitHub | Live Demo |Devpost

- **Developed a custom AI-powered dermatological analysis system** with **97% accuracy** in skin condition detection, utilizing **TensorFlow transfer learning** for real-time analysis on both **web platforms** and **offline kiosks** (powered by **Raspberry Pi 5** and **Electron**).
- Engineered a **dual-platform solution** integrating **Llama** for offline data privacy and **Gemini API** for web-based processing, delivering **personalized skincare routines**, **dietary recommendations**, and **tailored product suggestions**.
- Created a **comprehensive analytics dashboard** using **React** and **Material-UI**, providing users with actionable recommendations based on real-time skin analysis.
- Optimized performance for **cloud and edge devices**, ensuring high accuracy across varying conditions and delivering **AI-driven recommendations** seamlessly across both platforms.
  Utilized: React, Electron, FastAPI, TensorFlow, Raspberry Pi, Llama, Gemini API, Python, JavaScript, Transfer Learning, Computer Vision, Edge Computing, Tailwind CSS

Climately - Full Stack Developer | **HackHarvard '24** |Team of 3 GitHub |Devpost

- Developed a **Chrome extension** that integrates real-time weather updates with **Google Calendar**, enabling users to enhance daily planning and productivity by viewing **personalized scheduling suggestions** alongside their events.
- Implemented **Google OAuth** for seamless user authentication and designed a **RESTful API architecture** using **Java Spring Boot** to handle secure access to **Google Calendar** schedules and preferences.
- Designed a dynamic React frontend with a robust Spring Boot backend, integrating Weather API and OpenAI for 85% accurate suggestions.
- Implemented a **structured prompt engineering system** with **OpenAI API** utilizing system, assistant, and user prompts to generate **context-aware scheduling recommendations** based on weather conditions, reducing scheduling conflicts by **15%**.
  Utilized: React, Java Spring Boot, Google Calendar API, Weather API, OpenAI API, Google OAuth, Tailwind CSS, JavaScript, TypeScript, Vite

AFFILIATIONS & INTERESTS

Member | Intramural Soccer Team | Gettysburg College Spring 2023– Fall 2024
Volunteer |Painted Turtle Farm | Gettysburg College Spring 2023– Fall 2024
Interests: hackathons, drawing, 3D modeling (self-taught over 3 years), sculpting, running, volunteering.