

Alexander Witkowski

+1 (610) 248-1063 | alex.j.witkowski@gmail.com | Pittsburgh, PA

EDUCATION

Candidate: Masters of Science in Computer Science, AI Concentration

Expected Dec 2026

Georgia Institute of Technology, OMSCS

Relevant Coursework: AI for Robotics, Game AI, Artificial Intelligence, Natural Language Processing, Knowledge-based AI

Bachelor of Science in Computer Science

May 2024

University of Pittsburgh, School of Computing and Information

EXPERIENCE

Software Engineer

Dick's Sporting Goods, Pittsburgh PA

June 2025 - Present

- Architected cross-platform scheduling features using React, .NET, and React Native, optimizing workforce management.
- Integrated production ML recommendation models into the e-commerce shopping carts and search engines.
- Engineered end-to-end RAG pipelines utilizing Elastic Agent Builder to streamline data retrieval for L2 support applications.
- Developed a data-driven athlete performance framework for a 6-store golf pilot program, integrating Trackman and Fenris analytics to capture, process, and visualize real-time swing metrics.

Scrum Master

Sheetz, Pittsburgh PA

May 2024 - May 2025

- Facilitated Agile ceremonies for 5 cross-functional IT teams, balancing roadmaps with resource management constraints.
- Spearheaded technical capacity planning and resource allocation strategies for FY2025 project pipelines.

Software Engineering Intern

Sheetz, Pittsburgh PA

May 2023 – Dec 2023

- Collaborated within a fast-paced R&D team to engineer a data-driven MVP, building a scalable system to process and aggregate large-scale data from Teradata to support strategic research and analysis.
- Built a React front-end application with ChartJS to provide intuitive data visualization, delivering actionable insights to stakeholders, and provided technical support to executives for seamless application adoption.

R&D Software Engineer Intern

B. Braun Medical Inc, Allentown PA

May 2022 – Dec 2022

- Led a key contribution to re-architecting a real-time data platform, scaling the system to support a distributed network of 40,000 IoT endpoints (infusion pumps) across multiple facilities.
- Developed Python scripts with Microsoft Azure Translation API to localize the platform into German, Spanish, and Italian.

DevOps Engineer

University of Pittsburgh, Pittsburgh PA

Aug 2021 – Apr 2022

- Modernized backend services for the Pittsburgh Quantum Institute, streamlining operations and ensuring long-term reliability

PROJECTS

Frody.co: Architected a distributed, real-time fraud detection system leveraging a streaming data pipeline (Kafka) and large-scale data processing (BigQuery). This won 'Best Distributed Systems Hack' and 'Most Technically Complex' at PennApps 2024.

PLAY'r: Prototyping an application that leverages a large language model (Google Gemini API) for dynamic content generation, exploring the practical integration of foundation models into user-facing games.

Cinect: Created a Google Cloud-based app using ML to aggregate Letterboxd data for group movie recommendations.

FlightAdvisor: Designed a full-stack flight cancellation and pricing prediction app using linear regression.

EXTRACURRICULARS

Teaching Assistant: Teaching assistant for various programming classes at the University of Pittsburgh.

BNY Mellon Datathon: Developed ML regression models using Alteryx tools to analyze post-COVID-19 movie trends.

Steelhacks Organizer: Assisted in a development hackathon at the University of Pittsburgh, including an HTML and CSS website.

n8n Contributor: Contributed to the n8n open-source workflow automation platform, implementing Asana integration in TypeScript.

YouTube Contract Developer (30M+ Views): Contracted by top-tier content creators (TommyInnit, Antfrost) to rapidly design, develop, and deploy custom software modules (Java mods) for high-profile media projects.

SKILL & TOOLS

Languages: Python, Java, C#, TypeScript, JavaScript, SQL, C

AI/ML: PyTorch, TensorFlow, Scikit-learn, Pandas, Large Language Models (LLMs), Google Gemini API

Systems & DevOps: AWS, Google Cloud Platform, Docker, Kafka, PostgreSQL, CI/CD