

Aaron Feinberg

Yardley, PA

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Summary of Qualifications

Software developer and data scientist with extensive expertise in **full-stack development, database design, and neural networks**, particularly in building scalable, user-centric applications, optimizing processes through automation and helping businesses make data-driven decisions. Proficient in **Python (Django, PyTorch, OpenCV), C# (.NET, VBA, XML), SQL**, and various object-oriented languages, with significant experience in **ETL, data analysis**, and workflow **optimization**

Professional Experience

- Software Engineering Intern** Universal Health Services, King of Prussia, PA *June 2024 - August 2024*
- Improved the internal reporting platform by transitioning from static reports to **Power BI**, enabling real-time data analysis, user-defined visualization, and historic trending
 - Developed **SQL** queries and complex **stored procedures** for automated data extraction and processing, enabling instantaneous data access and the generation of reports for any retrospective time frame
 - Developed and debugged **SSIS** packages to ensure reliable data integration and automation, enhancing the efficiency of the **ETL** process to meet critical business requirements
 - Developed a program using **C#** and **.NET** to streamline mass email notifications for users' specific report subscriptions, dynamically gathering user details and sending personalized emails
 - Documented and standardized procedures for report conversions, creating a streamlined and repeatable process
- Software Engineering Intern** PFNonwovens, Hazelton, PA *May 2023 - Aug 2023*
- Developed dynamic applications to optimize the start-up of seven nonwoven product assembly lines with **.NET**
 - Leveraged real-time sensor data and line configurations to monitor and advise operators in the start-up process
 - Optimized program code for cross-line compatibility, facilitating quicker development and adaptability for all nonwoven products
 - Collaborated with engineers and operators to gather user stories, ensuring application functionality met operational needs

Academic Projects & Research

- Project Manager - Robot Laser Tag** *August 2024 - December 2024*
- Led the design and development of an autonomous robot capable of course navigation, object detection, and laser targeting. Coordinated team efforts, managed project timelines, and ensured seamless integration of hardware and software components to meet project objectives.
- Mobile Developer - Frugl (Android Application)** *August 2023 - December 2023*
- Collaborated on developing an Android application using Kotlin and Android Studio to help users find items optimizing for cost and proximity, featuring **Azure** API/database integration and automated online price querying through web scraping.
- Research Assistant & Developer - Chatbot for College Advising** *August 2024 - December 2024*
- Conducted research on Retrieval Augmented Generation for Large Language Models to develop a comprehensive advising application leveraging neural networks with **PyTorch** and **Langchain** to deliver personalized student advising services.

Technical Proficiencies

Programming Languages:

- 5 years of experience: **Python, C#, VBA, Java, HTML**
- 2 years of experience: **SQL, C/C++, Kotlin, MATLAB, Bash/ZSH, Javascript, Julia**

Frameworks: **Django** (4 years), **.NET** (4 years), **MVVM** (4 Years), **Pytorch** (2 years), **Power Platform** (1 Year)

Tools: Git, Github Actions, JetBrains, Visual Studio & VSCode, Bash Terminal, Microsoft Teams & Office365

Operating Systems: **Linux** (Arch, Debian, Ubuntu), **Windows** (Personal & Server), **MacOS**

Education

- Bachelor of Science** - Pennsylvania State University *September 2018 - December 2024*
- Major - **Computer Science**

US Citizen