

Grace McClurg

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Education & Skills

B.S. Computer Science and Engineering, GPA: 3.94. University of Louisville.

Aug. 2020 – May 2024

Skills: Machine Learning, Product Management, Cross-Functional Collaboration, Data Analysis, Data Infrastructure and Security, Model Evaluation and Validation, Search, Recommender Systems, Audio Processing, Figma, Azure, Python, C#, TypeScript.

Work Experience

Software Engineer (SWE)

Microsoft

Jul. 2024 – Present

- Support development of an Azure-based platform for scalable ML data management, annotation, and ingestion.
- Built pipelines to migrate 18 PB of speech data from a retiring system, aligning research and engineering teams via OKRs.
- Designed RBAC security infrastructure for multimodal data hub, authoring key architecture and design documentation.

Project Manager and Researcher

University of Hawaii at Hilo

Jan. 2023 – Dec. 2023

- Secured \$6k grant by writing proposal outlining project scope, timeline, and budget for AI-driven conservation initiative.
- Partnered with the University of Hawaii to evaluate an AI audio classification model trained on endangered birds' calls.
- Analyzed impact of species class granularity on model performance, improving accuracy for ecological monitoring.

SWE Intern

Microsoft

Aug. 2023 – Nov. 2023

- Enhanced OneDrive's image search by developing a PyTorch-based tool to scale datasets, improving search relevance.
- Improved dataset quality with metadata encoding through location-tagged images and location-based queries.
- Analyzed geographic distribution of OneDrive users and generated test set reflecting user demographics.

Research Assistant

University of Louisville

Jan. 2021 – Aug. 2023

- Mitigated popularity bias in collaborative filtering recommender systems (RSs), enhancing content discovery for users.
- Developed a novel popularity metric and multi-armed bandit-based selection mechanism.
- Led the evaluation of 10 RSs across 7 fairness and performance metrics for an upcoming journal publication.

Product Manager Intern

University of Louisville

May 2023 – Aug. 2023

- Led cross-team efforts to define user requirements and design Figma wireframes for a student performance analysis tool.
- Researched FERPA compliance and scoped cloud architecture, maintaining privacy regulations and budget constraints.
- Engaged directly with customers to present design progression and make iterative prototype improvements.

Product Manager and SWE Intern

Microsoft

May 2022 – Aug. 2022

- Led ideation, design, and implementation of Microsoft Teams extension aimed at connecting remote coworkers.
- Defined user personas and stakeholder requirements to guide application and wireframe design in Figma.
- Developed app with React and Typescript, integrating Azure Cloud Storage for database support.

Applied Experience

Computer Science Coloring Book Author

Jan. 2022 – Jan. 2023

- Authored and illustrated educational computer science coloring book introducing software concepts to young students.
- Secured \$4.8k grant to distribute 1.9k copies to rural communities impacted by poverty.
- Launched supporting website to expand accessibility with free digital resources: <https://www.coloringcomputing.org/>

Association for Computing Machinery President

Jan. 2021 – May 2023

- Directed recruitment and workshops, grew membership by 96%, and recognized with Distinguished Student Award.