Alex Kautz

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Goal: Working on a highly collaborative and agile team, focusing on Python and Machine Learning.
Skills: Experience in Python and C# programming along with Cloud Computing and Machine Learning. Knowledge of Microsoft's tech stack: Windows, Visual Studio Code, PowerShell, Azure, Azure Dev Ops, ect. Experience with the AzureML, Pytorch and Pytorch Lightning Python libraries.

Work Experience

Software Engineer, Microsoft Redmond WA January 2021 to Present
Python + Cloud + AI work:

- Collaborated closely as part of a 4-person virtual team.
- Co-developed a Python library for writing machine learning models and uploading them to cloud endpoints. Created functions to support PyTorch Lightning and send logs to Azure App Insights.
- Performed peer programing with a researcher to onboard an existing model.

C# + Azure work:

- Improved security of an existing Blazer web app.
- Moved an Azure surface fabric (C# API) project to a secure CI/CD pipeline.
- Developed knowledge of Azure concepts including Service Fabric, Web Apps, Blob Storage, Dev Ops Pipelines, and secret management.

Software Engineering Intern, 1010Data New York City Summer 2019
Completed 10-week internship in the back-end software team at a cloud analytics company.
Skills Developed:

- Python and web programming: Developed web back-end in Python Flask to manage Apache Airflow instances. Gained experience with REST APIs and database management using SQLAlchemy.
- Agile software development: Participated in daily scrum meetings and learned principles of unit testing and other aspects of agile development.

National Science Foundation Research Experience for Undergraduates
University of Minnesota Minneapolis, MN Summer 2017
Implemented an interactive graphical user interface for an image-based rendering and relighting tool for cultural heritage applications. Co-authored paper presented at Archiving 2018 conference.
Skills Developed:

- Graphical user interface development: Used JavaFX library to create an interactive user interface for existing Java codebase for creating 3-D models from still photographs.

Education

B.A. in Computer Science, Minor in Mathematics
University of Rochester Rochester, NY June 2020
GPA: 3.9
Skills Developed:

- Python and Java Programming: All my coursework was completed in Java and Python.
- Upper-level coursework: Artificial Intelligence, Human-Computer Interaction, Theory of Computing, Introduction to 3-D Modeling, Honors Calculus, Linear Algebra

Computer Science Writing

Unit Testing in Python: Blog: Paper Review: Test Coverage in Python Programs
Accessibility: Blog: How people and technology turned my differences into strengths