MADELEINE ANDERSEN

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SKILLS

Languages:

- Proficiency: Python, Golang, Javascript, Graphql, Bash
- Familiarity: SQL, Node, C++

Technologies: Docker, Gitlab CI/CD, Grafana, Poetry, Jupyter

AWS: ECS, ECR, Cloudwatch, S3, SQS, SNS, Lambda

WORK EXPERIENCE

Software Engineer, Techcyte, Inc. 2021-Present

- Worked on services that facilitate interactions between users and remote-controlled microscope scanners.
  - Developed a prototype into a first-class desktop application that monitors specified directories and uploads microscope images in those directories to a backend server. Application is resilient to poor network connections, OS disparities and unexpected machine reboots; is HIPPA compliant, remotely configurable, and self-updating.
  - Managed DevOps processes for my team: wrote Gitlab CI deployment pipelines, used Terraform to create AWS entities, wrote diagnostics tooling to find flaky tests.
  - Developed a web server that facilitates interactions between users and a specific type of internet-connected microscope scanner. The server translates user actions on a UI into scanner-compatible instructions, and provides the user visibility into the scanner's status. Implemented multiple server instances to handle a load increase from 500 to 2000 simultaneous active scanners.

Research Assistant, BYU Human Computer Interaction Lab 2019-2021

- Developed a machine learning application to assist ice skaters in improving their jump technique. Skaters wear a sensor that measures their speed and inertia, and that sensor data is streamed to and displayed on an Android app that detects when the skater performs a jump.

EDUCATION

ATLAS Institute, University of Colorado, Boulder, CO May 2027
M.E. Creative Technology Design

Brigham Young University, Provo UT April 2021
B.S. Computer Science

- Key contributor and project leader on a capstone project to develop a fully functional UI prototype for a local ecology startup. Won first place out of all capstone teams.

University of Utah, Orem UT April 2016
Associates of Science

HOBBIES AND INTERESTS:

Building stained glass windows, painting murals, playing guitar/ukulele, urban planning.