■ sam@macalu.so | 🏫 macalu.so | 🖸 oonis | 🛅 oonis

# **Work Experience**

SOFTWARE ENGINEER

DEVELOPER

**Amazon Web Services** Arlington, VA

SOFTWARE DEVELOPMENT ENGINEER October 2019 - Present

Vertafore East Lansing, MI

- Developed and maintained Java web applications for insurance and securities clients.
- Migrated existing architecture and source code to a static Angular codebase.
- Designed and implemented an SQL database for user authentication.

· Overhauled infrastructure to utilize serverless computational architecture, improving scalability.

**Better Games LLC** East Lansing, MI

FOUNDER November 2018 - October 2019

- Designed and implemented the C# backend and netcode for communication with Steam.
- Managed publisher communications and handled legal documentation for company formation.

#### Michigan State University School of Planning, Design and Construction

• Utilized ArcGIS to display vacancy data statistics on a PHP-based website.

• Developed a login plugin with user management for the WordPress CMS.

### Michigan State University Institute for Cyber-Enabled Research

TECHNICAL ASSISTANT · Wrote build scripts and maintained packages for the High-Performance Computing Cluster (HPCC).

• Upgraded systems to a new node cluster, improving computational efficiency.

#### **Michigan State University RS&GIS**

WEB DEVELOPER November 2015 - March 2017

• Developed the admissions portal and course registration system for the MSU College of Social Work.

· Maintained the course registration website for the MSU School of Human Resources and Labor Relations.

#### **Michigan State University Plant Research Laboratory**

East Lansing, MI December 2012 - January 2015

April 2019 - October 2019

East Lansing, MI

East Lansing, MI

East Lansing, MI

February 2019 - April 2019

July 2017 - February 2019

• Collaborated on projects involving Visual Phenomics, an image recognition system for analyzing photosynthetic data of plants.

• Developed PhenoMath, a tool for analyzing Visual Phenomics output using pattern recognition and outlier detection algorithms.

### **Projects**

RESEARCH ASSISTANT

#### CMS G2

CMS used by insurance and securities companies to maintain appointments and aggregate data.

2019

- Developed in Java with an LDAP user system for authentication.
- · Integrated with AWS for cloud-based data storage and processing.
- Streamlined appointment management and data aggregation for clients.

#### **Puttin' Around**

Online multiplayer mini golf game distributed via Steam.

2019

- Developed in C# using the Unity engine.
- Implemented dedicated servers for seamless multiplayer gameplay.
- · Achieved distribution on Steam, reaching a wide audience.

#### **MSU Social Work Undergraduate Application System**

APPLICATION SYSTEM FOR MSU STUDENTS TO APPLY TO THE SCHOOL OF SOCIAL WORK.

2017

- Built with PHP and a MySQL database for efficient data management.
- Included an administration portal for managing applications (not publicly available).
- Simplified the application process for students and administrators.

#### **MSU School of Human Resources and Labor Relations Course Registration**

WEB-BASED COURSE REGISTRATION SYSTEM FOR MSU'S SCHOOL OF HRLR.

- Developed in PHP with a MySQL backend for dynamic data handling.
- Provided an intuitive interface for students to register for courses.
- Improved administrative efficiency by automating registration workflows.

# **Education**

Michigan State University East Lansing, MI

COMPUTER SCIENCE

• Placed 4th at the ACM ICPC 2012.

2018

- Hacca Hill at the Mew let C 2
- Placed 3rd at MHacks 1.
- Relevant coursework: Algorithms, Data Structures, Software Engineering, Machine Learning.

Skills\_

**Programming Languages** C#, Go, Java, JavaScript/TypeScript, PHP, Python, Rust, SQL

Frameworks and Libraries Angular, React

**Cloud and DevOps** AWS, Docker, Kubernetes

**Tools and Other Skills** Git, CI/CD, REST APIs, Agile Development

2017