SAM BURKHARD

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EDUCATION

B.S. Computer Engineering | *University of Cincinnati, Cincinnati, OH* Graduating: May 2026

- GPA: 3.8, Dean's List, Cincinnatus Scholarship
- **Relevant Courses:** Intro to Programming, Engineering Design Thinking 1 and 2

PROJECTS

Programmer | Retro or Not? (Winner of Best AWS Implementation) Oct 2021

- Project created with two teammates for the IEEE MakeUC 2021 Hackathon, a 24-hour coding event
- Created a basic web application to predict whether a song sounds like retro music using machine learning
- Wrote a Python script to pull song information from the Spotify API to run through a machine learning binary classification model trained with Amazon Web Services (AWS) Sagemaker.
- Technologies used: Python, XGBoost, Sagemaker, Lambda, and Jupyter Labs, HTML, CSS, JavaScript

Programmer | InSite (Winner of Honorable Mention) Dec 2021

- Project created with a team for Ohio State's 2021 HackOHIO Hackathon, a 24-hour coding competition
- Designed and built a frontend website using React.js and a native application using Electron.js
- Built a machine learning application to predict the likelihood that a given sentence has COVID-19 misinformation using Tensorflow and a Long short-term memory (LSTM) model
- Technologies used: Python, JavaScript, React.js, Electron.js, Tensorflow

Lead Programmer | Raspberry Pi Sensor Hub Jan 2020 – Feb 2020

- Led a small team in programming a Raspberry Pi to collect sensor information to be sent to a main computer and a locally hosted website.
- Managed project by setting goals, deadlines, and outlining the steps needed to achieve them
- Technologies used: JavaScript, Node.js, WebSocket, HTML, CSS, JavaScript, I2C

EXPERIENCE & ACTIVITIES

Lead Programmer | *Lakota Robotics, FIRST Robotics Competition, West Chester, Ohio* Dec 2019 – Aug 2021

- Volunteered for outreach events and won team award for high potential
- Programmed computer vision software in Python to identify vision targets for a robot to align to
- Led a small team in designing and programming a system for sending sensor data to a central computer while also running a diagnostic server using a Raspberry Pi, JavaScript, and Node.js
- Learned to work effectively with a team and how to manage long-term projects

Trainer | *The Cone, West Chester, Ohio* Mar 2019 – Aug 2021

- Responsible for training and evaluating new employees
- Customer interaction and conflict resolution
- Learned to take initiative and how to take on new responsibilities

Volunteer | *iSpace, Cincinnati, Ohio* Jun 2017 – Jul 2019

- 500+ hours helping lead summer camps, teaching in multiple workshops, and running events that engage kids in hands-on problem solving and team-based projects exploring robotics, rocketry, programming, and more.

EXTRACURRICULARS & AWARDS

Congressional Award Gold Medalist | *U.S. Congressional Award, Washington, DC* Jun 2017 – May 2019

- 1500+ hours working on personal development, volunteer service, physical activity, and exploration
- One of 478 students recognized nationally with the highest level of the award in 2020

Volunteer of The Year, (2x) Gold Presidential Service Award | *iSpace, Cincinnati, Ohio* Jun 2017 – Jul 2019

SKILLS

- **Technical:** Experience in Java, Python, JavaScript, Swift, Node.js, LabVIEW, HTML, CSS, jQuery, MongoDB, Visual Studio Code, MATLAB, C++