

Jonas Kazlauskas

Climate and AgTech Software Engineer
Interested in Startups

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[portfolio](#) [github](#) [linkedin](#)

Education

Bachelor of Science in Engineering with Computing Olin College of Engineering

- 4.0 GPA, Graduating Dec. 2023
- Co-Director, Catalyst Entrepreneurship Club
- Automation Lead, Olin Hydroponics

Skills

Soft: Independent, self-directed, proactive communicator, empathic, mission motivated, thrives in fast paced environments

Languages: Python, Go, C++, Javascript, SQL, HTML/CSS, C

Packages: FastAPI, Pandas, Flask, React, PlatformIO

Tools: AWS, Ansible, Docker, Kubernetes, Git, Bash, Github

Actions, Linux

Experience

Automation Lead, Founder

Olin Hydroponics

Aug 2020 - Present

A team of 15 researching AgTech and building an automated hydroponics garden on campus

- Designed and deployed a full-stack data pipeline for controlling and monitoring our garden, processing and acting on 1500+ sensor data points/day
- Data API in Javascript using GraphQL, MySQL, and Express deployed with Docker Compose: [link](#)
- A C++ control loop for interfacing with sensors and actuators: [link](#)
- High level controller for version 2 of our automation architecture written in Go: [link](#)

Software Engineering Intern

Heirloom Carbon

Summer 2022

Fifty person startup building cost-effective Direct Air Capture, worked on their software team of 4

- Refactored an internal data provider in Go that aggregates and standardizes over 15,000 environmental data points per day from 8+ sources (external APIs, local sensors), reducing complexity and increasing maintainability
- Designed and deployed an alerting system in Go that monitors AWS Lambda functions and reports errors via slack messages, revealing over 10 bugs upon deployment
- Created relational database schemas for a generic sensor table structure to support future system sensing

Solutions Engineering Coop

Indico Data

Remote Spring & Summer 2021

Thirty person startup developing AI for enterprise document processing, worked on the solutions engineering team of 5

- Developed an internal and customer facing library in Python to abstract common operations: [link](#)
- Wrote and tested ETL data pipelines using Python, pandas, and an Internal API for customers

Software Engineering Intern

Singularity Energy

Remote Summer 2020

Two person startup helping businesses decarbonize from grid emissions, worked solo on a new potential product

- Extended the data platform and built a new product that supports 10 active users using Python, Flask, SQLAlchemy, Bootstrap
- Researched market opportunity of new product; 40 interviews with 25 people over 6 weeks
- Presented a recommendation of product direction for the next 9 months

Projects

- Plant detection and measurement in images using Python, OpenCV, PlantCV: [link](#)
- Plant image storage/retrieval API in Python with FastAPI deployed with Docker and Ansible: [link](#)
- Fullstack cup noodle vending machine:
 - Basic Python FastAPI API for receiving and queuing customer orders: [link](#)
 - ESP8266 C++ web server handler to get noodle orders written using PlatformIO: [link](#)
 - C++ X-Y gantry controller to drive the vending machine; coordinating movement of 7 motors: [link](#)
- Git imitation version control system written in C: [link](#)
- Line following robot with PID controls written in C++ and Python: [link](#)
- Portfolio website written with React, HTML, CSS: [link](#)