

# 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](#)