

Alexander Lukens

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EXPERIENCE

Software Engineer

February 2022 - Present

Intelligent Artifacts

New York, NY

- Oversee technical challenges and feature implementation of web platform utilizing the Flask web framework
- Ensure high availability of web platform utilizing MongoDB and Digitalocean cloud deployment
- Achieve > 95% test coverage on core projects using Pytest
- Automate deployment pipelines for documentation and Docker images
- Reduce recurrent issues by > 90%
- Ensure code consistency using Ruff and document code using Sphinx Docstring syntax

Prototyping Lab Assistant

October 2019 – November 2021

Illinois Institute of Technology

Chicago, IL

- Ensured student safety while operating shop equipment
- Maintained and operated 3D printer fleet
- Assisted students with electronics prototyping and code debugging
- Utilized CAD software to generate toolpaths for large format CNC machines

Web Developer

April 2021 – December 2021

Idea Shop Prototyping Lab

Chicago, IL

- Utilized Flask web development framework to create dashboard and student training interface
- Visualized real-time shop status and capacity metrics
- Integrated with SQLAlchemy to serve dynamic information from IoT devices
- Provisioned edge devices to enable remote access and authentication for shop equipment

PROJECTS

Eventit-py | Python, Flask, MongoDB, FastAPI, Pytest

December 2023 - Present

- Implement Python module with core functionality for event tracking
- Utilize pre-commit, Ruff, and Pytest to enhance code quality
- Design extensions for FastAPI, Flask, and OpenTelemetry
- Support 3+ data backends for long-term storage

CaptainsLog | Python, Docker, GTK4, AppImage

June 2023 - August 2023

- Developed graphical user interface using GTK4 for the Docker daemon to view and export Docker container logs
- Utilized GTK4 to add search functionality to container logs
- Visualized container status in UI by querying Docker daemon
- Packaged app using AppImage format for Linux distribution

EDUCATION

Illinois Institute of Technology

August 2018 – December 2021

Bachelor of Science in Electrical Engineering - Summa Cum Laude

Chicago, IL

TECHNICAL SKILLS

Languages: Python, C/C++, ReST (Sphinx), Bash, HTML/CSS

Frameworks: Flask, Pytest, Celery, Socket.IO, gRPC, OpenMP

Developer Tools: Git, Docker, Bitbucket Pipelines, Vim, Digitalocean, VS Code, CMake

Libraries: PyMongo, NumPy, Requests, Pandas, Boost

PERSONAL

- Proud two time finisher of the Chicago Marathon
- Passionate about Linux and FOSS projects
- I enjoy reading about new libraries and working on my Python & DevOps knowledge
- Member of New York Road Runners and IEEE Computer Society