

ZACHARY PEARSON

SENIOR SOFTWARE ENGINEER

CONTACT

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SKILLS

- Rust
- C++
- Python
- Docker
- Kubernetes
- Redis
- Argo CD
- Harbor
- Github Actions

EDUCATION

BACHELOR OF SCIENCE

Physics
Hamline University
2013 - 2018
GPA - 3.5

CERTIFICATIONS

Certified Kubernetes Application Developer (CKAD) | November 2020 - Present

Certified Kubernetes Administrator (CKA) | October 2020 - Present

WORK EXPERIENCE

IMAGE SENSING SYSTEMS

Senior Software Engineer | 2021 - Present

- Lead an embedded video product from proof of concept to production. Mainly responsible for C++ Gstreamer pipeline, deep learning model integration, and multi-threaded architecture.
- Created Rust REST API deployed with AWS Fargate for post-processing and data analysis
- Created Rust CMD applications for communicating with the device remotely

Software Engineer | 2018 - 2021

- Demonstrated usefulness of Deep Learning and integrated with embedded production applications by cross-compiling Tensorflow Lite for C++ Armv7 linux and creating an embedded deep learning service.
- Diagnosed and resolved issues with legacy C++ computer vision algorithms
- Prototyped radar algorithms in Python and later ported to C++ production services
- Developed R&D applications in AWS and presented results weekly to CEO and VP of Engineering.

Software Engineer Intern | 2017 - 2018

- Created a Python application that steamed and parsed byte-stream data from a 3rd party embedded radar unit to sync and fuse with in-house embedded video
- Analyzed and optimized various computer vision algorithms to run faster and use less memory in Python and C++

PERSONAL PROJECTS

- Developed top-down 2D video game in Rust with Bevy for Bevy Jam #1 and compiled to Web Assembly - <https://roonr.com/sunflower>
- Developed WORDLE-like alphabet game using Rust and Web Assembly - <https://roonr.com/alphabet-game>
- Responsible for Kubernetes cluster that serves personal site and CI/CD pipeline that utilizes Github Actions, Harbor, and Argo CD.