

Zac Pearson

Principal Software Engineer

Address: Saint Paul, USA
Willing to relocate to Germany
Email: z@c-franklin.me
Nationality: USA
Date of birth: 14 May, 1995

Website: roonr.com
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Professional Profile

Software Engineer with 8 years of experience. Led development projects across multiple international teams and mentored engineers by aligning tasks to their professional ambitions.

I believe in creating technology that improves the lives of people and communities. I am interested in working with a creative and passionate group of people with equal ideals.

Primary stack: C++, Rust, PostgreSQL, AWS, React

Work History

- 01/2025 – present **Principal Software Engineer**
ImageSensing Systems - imagesensing.com | Minneapolis, USA (Hybrid)
Video processing platform to provide cities with safety analysis of roadways.
Tech stack: C++, Rust, React, PostgreSQL, Node.js , AWS
- Coordinated productization of SaaS platform by distributing work efficiently across development teams in India, Poland, and US.
 - Led project for moving our Desktop UI to a Web Application.
 - Mentored team using pair programming and fun interactive meetings.
 - Innovated regularly with executive stakeholders to adapt our applications for unique customer needs.
 - Implemented fault-tolerant communication between devices and AWS.
- 05/2021 – 01/2025 **Senior Software Engineer**
ImageSensing Systems - imagesensing.com | Minneapolis, USA (Hybrid)
Tech stack: C++, GStreamer, SQLite, Docker, Python, OpenCV
- Co-created an embedded video pipeline to process 4 video streams in real-time.
 - Improved development process by modernizing tech stack for readability, reliability, and quick integration.
 - Accelerated simulation test suite 25x by converting the pipeline to a microservice cloud architecture.
 - Devised and delivered a product that opened up new markets by refactoring our simulation test suite to accept users' pre-recorded videos.

- 05/2018 – 05/2021 **Software Engineer**
ImageSensing Systems - imagesensing.com | Minneapolis, USA (On-site)
- Implemented car, bike, and pedestrian differentiation by integrating a Deep Learning model into our embedded platform.
 - Optimized data storage 15% by moving common geo-coordinate data into a linkable table.
 - Updated codebase to run on a new GPU-enabled embedded platform.
- 01/2017 – 05/2018 **Software Engineer Intern**
ImageSensing Systems - imagesensing.com | Minneapolis, USA
- Adjusted sensor error by parsing vehicle information from a 3rd party radar system and fusing it with our video data.

Education

- 08/2013 – 05/2018 Bachelor of Science - Physics
Hamline University
Saint Paul, USA
- 11/2020 Certified Kubernetes Application Developer (CKAD)
- 10/2020 Certified Kubernetes Administrator (CKA)
- 11/2019 AWS Certified Solutions Architect - Associate (SAA)

Additional Skills & Interests

Personal Projects

- roonr.com - Kubernetes backend for hosting personal projects utilizing Harbor, Argo CD, and GitHub Actions
- roonr.com/alphabet-game - Fun Wordle-like game made for practicing the capabilities of WebAssembly and Rust.
- roonr.com/horta - Simple game for understanding WebSockets with Warp in Rust and handling multiple game instances.
- roonr.com/sunflower - Top-down 2D game made for Bevy Jam 1 to learn game development with Bevy.

Languages

- English(Native), German(A2)

Interests

- I have watched every Star Trek episode and was described by a manager as the Geordi La Forge of our company.
- I enjoy pottery, playing the violin, and other hobbies that don't involve a computer screen.