

ROSS KOEPKE

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B.S. Chemical Engineering, Michigan Technological University

B.S. Computer Science, University of Houston - Expected Dec. 2022

High Performance Computing Courses from the Hewlett Packard Enterprise Data Science Institute

Linux · GCP · AWS EC2 · SQL · C · C++ · Python · HTML/CSS/JavaScript · Project Management

PROFESSIONAL EXPERIENCE

Systems Software Engineering Hewlett-Packard Enterprise, Houston, TX May 2020 – Sep. 2020

- Architected and wrote a multithreaded python service using nmap and REST queries to identify improperly configured hosts on the network.
- Configured automation of VMWare host provisioning and de-provisioning.
- Identified the opportunity for, proposed, architected, designed, and built an embedded IoT ecosystem that performs environmental monitoring and alerting to prevent downtime events which periodically interrupted >200 engineers.

Engineering Contractor PLI General, Houston, TX Oct. 2018 – May 2019

Technical lead on legacy codebase migration

- Led daily agile standups for technical team
- Solely responsible for all reverse engineering of embedded controllers.
- Built a custom re-usable Python tool to parse ICS Triplex source code, generate directed graph network of I/O points, automate new code generation from abstract syntax tree, and created interactive codebase visualization.
- Identified and raised concerns about large gaps in project scope early on, reducing technical debt.

Systems Engineer RoviSys, Houston, TX Mar. 2016 – Sep. 2018

Primary engineer on 1,200-device system migration

- Designed and commissioned interfaces and automation system for third party client.
- Reduced team workload by 60% using VBA and Python.
- Resolved client's primary concern by using machine learning methods to determine how to isolate groups of devices to perform on-site cutover without shutting down production.

Engineer for \$3.9MM system migration for pharmaceutical plant

- Provided two months of onsite support to verify that the new code is functionally identical to the existing system to avoid triggering regulatory validation requirements.

Onsite construction manager for \$750,000 control systems upgrade at oil pipeline terminals

- Proposed and maintained project schedule. Ran all-hands meetings remotely and onsite to discuss timelines, identify roadblocks, and re-arrange work crews in order to avoid lost time.
- Validated contractor invoices, quotes, and estimates. Drove change order process for unplanned work.
- Managed all subcontractors (IT installers, electricians, builders, excavation) both remotely and from onsite.

CONTINUING EDUCATION / PROJECTS

Intern Project IoT Sensors and Platform Summer 2020

Embedded C · ESP32 / ESP8266 · Prometheus · Grafana · HTTP · RESTful · IoT · Systems Engineering

- I identified the opportunity for, proposed, architected, designed, and built a full IoT ecosystem from scratch, bespoke for our specific lab / datacenter needs.
- This system performs environmental monitoring and alerting to prevent downtime events which periodically interrupted >200 engineers.
- Lowered cost for system from >\$10,000 contractor quote to \$250 in parts and under 40 hours of engineering.