CLAYTON AULD

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ELECTRICAL ENGINEER – LINUX, NETWORK & EMBEDDED SYSTEMS

LINUX DEVOPS ~ EMBEDDED SYSTEMS ~ RF MICROWAVE ENGINEERING

Linux DevOps Systems
Microwave System Design
Technical Troubleshooting
Firmware Design

B.S. Electrical Engineering: Computer Engineering with considerable foundation in embedded systems design, and communication theory.

Linux DevOps systems architect and infrastructure designer.

Skilled in designing, testing, and integration of hardware and software for embedded operating systems, and communications systems.

PROFESSIONAL EXPERIENCE

GCI COMMUNICATION CORP. • Anchorage, AK — Oct 2022 to Present

ENGINEER III, CAPACITY FORECASTING & LINUX DEVOPS ENGINEER

- Spearheaded the documentation of software systems and software standards for the forecasting team.
- Led the implementation of Linux server infrastructure to fill the team's software development and data analysis needs.
- Investigate and monitor telecom system power, HVAC, battery plant load and capacity for use in forecasting growth.
- Forecast network capacity demand and growth across GCI's TERRA microwave network in western Alaska.

GCI COMMUNICATION CORP. • Anchorage, AK — May 2020 to Oct 2022

RADIO FREQUENCY ENGINEER I AND II

- Lead RF engineering & design on yearly upgrades to GCI's TERRA microwave network throughout western Alaska.
- Function as subject matter expert (SME) for GCI's Microwave TERRA network, directing junior engineers in processes and designs, evaluating design options for network upgrades.
- Perform network design for point-to-point (PtP) microwave systems using RF design planning tools.

EMERSON AUTOMATION SOLUTIONS (ROSEMOUNT, INC) • Shakopee, MN — Sept 2017 to Sept 2018

SOFTWARE DESIGN ENGINEER

- Modified and developed firmware for microcontroller and embedded systems on Rosemount Wireless devices.
- Support existing Rosemount 1410 WirelessHART® gateway products within the Rosemount Wireless product group.
- Created and modified field software packages (DDs) for control and configuration of Rosemount Wireless products used within Emerson AMS and DeltaV software suites.

TECHNOLOGY PROFICIENCIES

Programming: Bash/Shell | Ansible | C/C++ | Python | MATLAB | VHDL
Engineering Tools: Docker | Kubernetes | Yocto | Buildroot | Pathloss 5.1 | Eagle PCB
Operating Systems: GNU/Linux | MacOS | Windows | UNIX
Architectures: x86/x64 | ARM Cortex-M | RISC-V | MSP430

EDUCATION AND CERTIFICATIONS

UNIVERSITY of ALASKA - FAIRBANKS, Fairbanks, AK
BACHELOR OF SCIENCE, ELECTRICAL ENGINEERING: COMPUTER ENGINEERING - May 2017

NATIONAL COUNCIL of EXAMINERS for ENGINEERING and SURVEYING (NCEES)
FUNDAMENTALS OF ENGINEERING: ELECTRICAL AND COMPUTER - April 2017

LINUX PROFESSIONAL INSTITUTE
LE-1: LINUX ESSENTIALS - March 2021

ADDITIONAL EXPERIENCE

ALASCONNECT • Anchorage, AK — Jan 2019 to May 2020

SYSTEM TECHNICIAN I

- Provided project and service ticket oversight on technology issues in corporate desktop and server environments.
- Maintained documentation for client IT infrastructure, including updates, maintenance, and solutions to issues.
- Managed deployment, maintenance, support and upgrades for end user PC hardware and systems.

NORTHERN EMBEDDED SOLUTIONS • Fairbanks, AK — May 2016 to May 2017

EMBEDDED SYSTEMS ENGINEER

- Served as engineer support in providing embedded systems design for Unmanned Aerial Systems (UASs), University of Alaska Fairbanks, and ACUASI.
- Integrated Pixhawk flight control systems, completed configuration for Unmanned Ground Vehicles, and customized Arduino hardware and software designs to develop unique robotic capabilities.

ALASKA CENTER FOR UNMANNED AIRCRAFT SYSTEMS INTEGRATION • Fairbanks, AK — Jan to July 2016

STUDENT HARDWARE DESIGN ENGINEER

- Minimized and lightened weight of designed system for UAS payload integration and delivered detailed report outlining project analysis for client.
- Designed PCB for camera payload and flight system. Provided detailed report outlining flight asset system viability.

ATS ALASKA • Fairbanks, AK — May to Nov 2014

ENGINEERING INTERN

- Collaborated on designs to create and edit design plans and drawings within set parameters. Installed fire alarm and controls systems.

DESIGN ALASKA • Fairbanks, AK — April to August 2013

ELECTRICAL ENGINEER INTERN

- Worked with Project Management and NFPA 70 to set appropriate project scope.
- Developed project design package in AutoCAD 2012.

UNIVERSITY OF ALASKA FAIRBANKS OFFICE OF SUSTAINABILITY • Fairbanks, AK — Aug 2012 to Dec 2013

STUDENT EMPLOYEE

- Designed and implemented electrical metering system for new housing project. Configured single-board computer to collect electrical usage data.

UNIVERSITY OF ALASKA FAIRBANKS UTILITIES • Fairbanks, AK — June to September 2012

ELECTRICAL ENGINEER INTERN

- Installed new Modbus TCP based campus-wide distributed instrumentation system for metering of electrical, water, and steam utilities.

ALASCONNECT • Fairbanks, AK — September 2013 to March 2014

HELPDESK INTERN I

- Provide quick, thorough responses to customer technology issues, properly escalate tickets to support staff.
- Maintain maintenance, ticketing logs, Active Directory and Exchange services.

ARCTIC REGION SUPERCOMPUTING CENTER • Fairbanks, AK February to June 2012

RESEARCH PROJECTS ASSISTANT

- Linux, Unix operating system administration, testing and documenting software installation.
- Performing network operations and troubleshooting, advanced technical computer maintenance and research.