Gerhard van Andel

[redacted], CO – USA

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Education

Colorado State University **Fort Collins**
Bachelors of Science: Applied Computing Technology, Minor in Business Administration *Fall 2014 - Spring 2017*
GPA: 3.4

Technical Proficiencies

Languages: c, c++, java, python, go, html5, css, javascript, php

Frameworks: mapreduce, hadoop, hdfs, spark, storm, kafka, zookeeper

Scripting: sh, mksh, bash, perl, ansible

AWS: lambda, batch, beanstalk, ecs, ec2, s3

Documentaion: confluence, lucidchart, visio, latex

Databases: mmariadb, sqlite, postgress

Experience

[redacted] **[redacted], CO**
Staff Satellite System Engineer *May 2017 - present*

Design Design and implement a software library to operationally interface with over one hundred micro-services, for both automated recovery and manual recovery, log parsing, and system integration for additional micro-services.

Support Provide on-call support to 24x7 operations teams managing the ground system, across multiple domains.

Analyze Responsible for working with management and development teams to understand the requirements of a cloud based solution. Then with these requirements, dream of what could be, and document how they are implemented to insure minimum up-time and minimum cost impact. Used logs and scripts to provide real time metrics of system health, system performance, system bottlenecks, and system cost.

Optimize Optimize image processing systems running in a high performance computing environment with both a scalable and elastic design.

Develop Specialize in the development and deployment of delivery domain systems and software into operational satellite ground system.

Colorado State University: Computer Science Department **Fort Collins, CO**
Undergraduate Research Assistant *October 2016 - May 2017*
Funded through the National Science Foundation Research Experiences for Undergraduates program (NSF REU).

Configured and installed Apache Storm with the intent to design different fault tolerance schemes for stateless message processing on department machines to test a variety of different data and message.

Colorado State University **Fort Collins, CO**
Network Operation Assistant *August 2014 - May 2017*
Assisted in the monitoring and maintenance across an enterprise network.

Create and design network maps of wired and wireless infrastructure. Across an infrastructure across 180 buildings and, assist with telecom management by prototype and design low cost network monitoring device used to solve problems.

Coursework

CS455 - Distributed Systems: Concurrent programming, thread pools and safety, non-blocking I/O, scalable server design, distributed mutual exclusion, distributed graph algorithms, distributed objects.

Shortest Paths in a Network Overlay - *Java* - Construct a logical overlay over a distributed set of nodes, and then computing shortest paths using Dijkstra's algorithm to route packets within the overlay.

Scalable Server Design - *Java* - Using non-blocking I/O multiplexing to receive from 100's of clients to a single thread then process messages on a fixed sized thread pool.

Analytics of the US Census Dataset - *Java* - Using Hadoop's MapReduce analyzed, parsed and processed 50GB of the 1990 US Census dataset to support knowledge extraction over demographic data from all fifty states.

CS370 - Operating Systems: Inter Process Communications, Threads, CPU Scheduling, Process Synchronization, Memory Management, Virtual Memory, Virtualization, Mass Storage & Disk Scheduling

Wireless Packet Generator - *C* - Distributed mesh networking to generator and analyze network traffic for wireless load balancing.

SANS Holiday Hack Challenge: Participant (2015, 2016, 2017, 2018)

Notes: Completed kessel run in less than 13 parsecs, rescued the crew of the Kobayashi Maru on my fourth attempt