HEIN M. THU

Software Engineering & IT Administration

CONTACT

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San Marino, CA

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EDUCATION

M.S. Computer Science
Westcliff University
Aug 2021 – Aug 2023
Irvine, CA
GPA: 4.000

B.S. Computer Science
Chapman University
Aug 2015 – May 2018
Orange, CA
GPA: 3.889

SKILLS

Database Management
(MS SQL, PostgreSQL, MySQL)
Web Development
(JavaScript, VueJS, HTML, CSS, TypeScript)
Software Development
(WPF, .NET, Android, Visual Basic)
Object-Oriented Programming
(Java, C#, C++)
Scripting
(PowerShell, Python, VBS, Bash)
Cloud Infrastructure
(GCP, Oracle, Terraform, Docker, Kubernetes)
Cybersecurity
(Ransomware Recovery, Threat Detection, Threat Analysis)

COURSES

Data Structures & Algorithms
Software Quality Metrics
Software Engineering Concepts
Data Management
Big Data Analytics
Systems Architecture

CAREER OBJECTIVE

Seeking to utilize my software development and system administration skills to design and develop a holistic software system meeting both aspects of maintainability and operability.

Work Experience

Network Operation Center Engineer
Alvaka Networks, Irvine, CA
Aug 2018 – May 2021

- Implemented an access-controlled .NET application to allow the operations team to safely reconfigure malformed batch jobs instead of recreating them shaving 15 minutes of work into a single click.
- Built a dynamic inventory dashboard utilizing Exchange APIs, REST APIs, and web data extraction techniques to collect and integrate data across various IT services into a central SQL database allowing the billing department to generate customized report for each business client.
- Trained two software engineering interns on Git source version control and SQL database concepts by overseeing their projects.
- Improvised a system in 3 days to efficiently process and monitor over 2,000,000 encrypted files boosting effective ransomware recovery rate from 24% to 99.95%.
- Spearheaded an agent remediation campaign by building a reporting tool to monitor, detect and diagnose over 3,000 agents with a success rate over 90%.

IT Engineer Intern
Angela Sin Lway Chan MD Inc, Bell Gardens, CA
May 2017 – Aug 2017

- Restructured the database backup system saving over 70% storage usage in addition to an offsite replication to meet the 3-2-1 standard.
- Configured and installed open-sourced OPNSense firewall to secure the perimeter, manage DNS, and allow multi-factor VPN access.
- Developed scripts to digitally process and fax documents saving up to 50% of daily paper usage.

Projects

Promoes (VueJS, TypeScript): a personal website with blogging capabilities built with VuePress and Gungnir. The website is hosted on Firebase, protected by Cloudflare, and deployed and tested using GitHub workflows.

Resume (Java, Spring Boot, K8): a RESTful web service for configuring resume data stored in a PostgreSQL database. The app and the database are dockerized and deployed on a Kubernetes cluster behind a Spring Cloud Gateway.

CryptoFeel (Java): a multi-threaded android app that scrapes details of top 25 cryptocurrencies and correlate them with naive sentiment analysis of top 50 tweets of each currency. Uses CoinMarketCap, Twitter4j, and CryptoCompare APIs.

Salem Witch Trial (Java): a multi-threaded, console-based game that allows multiple clients to play and communicate to the server using TCP/IP web sockets.

PhotoMosaic (C++, OpenMP): a multi-threaded app using Canny Edge Detection and RGB Values to create a mosaic of thousands of images.