

Kellen Karls

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Education

Drake University, Des Moines, IA

August 2018 - May 2021

Bachelor of Science in Computer Science
Bachelor of Science in Data Analytics

Bachelor of Science in Mathematics
Bachelor of Arts in Quantitative Economics

Professional Experience

Principal Financial

June 2020 – Present

Software Engineer II - BPDA - Software Engineer I - LDAE - Data Engineer Intern - LDAE

- Architected AWS CDK-based IaC repositories to drive automation, standardize infrastructure deployment, and streamline cloud migration, establishing foundational practices for DevOps and supporting data analytics workflows across cross-functional teams.
- Delivered cloud-native data pipelines and managed and developed analytics environments while enforcing strict IAM least-access security.
- Built integrations to enhance data accessibility and workflow efficiency, developing connectors for Power BI, integrating with on-prem systems like DB2, Denodo, and Oracle, and ensuring seamless testable data synchronization across AWS and Snowflake environments.
- Created comprehensive technical documentation, detailed onboarding resources, and visual diagrams of architecture and data schemas. Mentored new engineers and contractors on cloud best practices, secure infrastructure design, and scalable deployment standards.

Encryptium LLC

October 2018 – October 2020

Co-Founder & CTO

- Developed decentralized cybersecurity solutions using blockchain technology to securely encrypt passwords, splitting hashed values across a decentralized network. This method mitigates centralized database risks and supports secure authentication, including 2FA.
- Designed a token-based payment model to enable node payments, fostering participation and enhancing data security.
- Authored a whitepaper on decentralizing sensitive data, detailing the technology's framework and cybersecurity applications.

Drake University

February 2020 – May 2021

Tutor

- Tutored mathematics and computer science one-on-one and as a teaching assistant, applying skills from a tutoring course.

Personal Engineering Projects

Video Content Generator

2024

- Integrated web scraping, text to speech, and video compilation into a versatile scalable automated pipeline.

Various Video Games

2019-2024

- Used Game Maker Studio 3 to create various 2D game prototypes, concepts, finished builds, and game jam entries.
- Coding in GML with an emphasis on controls, movement, and homemade physics interactions. Creating sprites and other assets.

Terrarium Controller

2022

- Created a time-based embedded system to run automated light cycles, also capable of video recordings.
- Experimented with a Raspberry Pi, Linux, shell scripting, GPIO, and circuitry.

Catan Simulator

2021

- Play or simulate games of Catan with one player, testing a variety of player strategies and game theories. Presented results for Capstone.

Projects, including those listed, are on GitHub and accessible via LinkedIn.

Expertise -> Languages -> Programs -> Certs

CI/CD IaC Data Pipelines Full-Stack AI End-to-end dev Cloud Applications Cybersecurity DevOps Automation

Python SQL GML R SAS Java TypeScript HTML CSS JavaScript Selenium MoviePy Pillow Pytorch TTS AWS CDK Snowpark

AWS Snowflake Git GitHub Actions GitHub CoPilot Heroku Flask Docker Stable Diffusion Hashicorp Vault PowerBI Data360

ServiceNow IdentityNow Confluence JIRA Cherwell Tivoli REST ARA WinSQL DB2 Denodo Oracle Microsoft and Adobe Suites

AWS Certified Cloud Practitioner AWS Certified Developer