



Karl F P.

Blockchain Developer/Analyst

Summary

Blockchain Developer/Analyst with over 20 years of web development with a focus on web security applications. Technical experience with several leading Blockchain technologies including Rust, GoLang, Web3, JavaScript, ReactJS, Solidity and Smart Contract Auditing. Application security experience including SSO, OpenId, OAuth 2.0, 2FA. ROI focused approach to project management using best practice and best fit methodologies.

Areas of Expertise

Smart Contract Security, Blockchain Concepts, SQL, Web UI, Application Security, IAM, SSO, MFA, OAuth

Skills

Languages : Golang, Rust, JavaScript, Bash, Python, PowerShell, ASP.Net Core, C#, HTML5, CSS
Database : SQL, MySQL,
Mongo DB,, JSON, XML
Environments : AWS, Azure, Linux, Ubuntu, Docker, Windows Server
Platforms : Visual Studio, VS Code, Azure DevOps
Tools : Selenium

Certifications

Certified NFT Developer
Certified Uniswap Expert
Certified DeFi Expert
Certified Blockchain Expert
Certified Solidity Developer
Certified Hyperledger Developer
Certified Blockchain Security Pro
Certified Cryptocurrency Auditor
Certified Blockchain & KYC Pro
Certified Blockchain & Law Pro
AWS Certified Cloud Practitioner
Okta Certified Professional
CyberArk Certified Trustee

Essential Skills

Communication, Creativity, Teamwork, Adaptability, Organization

Industries

Insurance, Health Care, Logistics, Global Trade

Professional Experience

Owner (K2P Development LLC)

Waukeg, IA

Oct 2020-Present

Staking, Trading, Analysis, Certification and Training, Developing Web3 and other Blockchain Tools and demos

- Blockchain projects on github (github.com/karlpothast) and docker hub :

SolidityCode.Reviews (GoLang, AutoCert, CertBot, Linux, Docker, ReactJS)

- Solidity smart contract security analysis and best practice recommendations



- Covers 70+ areas of smart contract vulnerability on each scan
- Built with a ReactJS frontend connected to a Docker Go API backend
- Go API interacts directly with Ubuntu command shell to bring Slither and Ethereum Security Framework output to the web UI

Links : [soliditycode.reviews](#), [GitHub](#)

Rust Chrome Extension Template (Rust, WebAssembly, Web3)

- Made with Rust/WebAssembly/JavaScript/CSS
- Simple ticker plug-in app to demonstrate WebAssembly powering JavaScript
- Connects to CoinGecko API for live price info
- Demonstrates efficiency gains in using Javascript + WASM

Links : [GitHub](#), [ChromeExtensionStore](#)

Theta Guardian Node Docker Container (Linux, Docker, Staking, Bare Metal Efficiency)

- Theta Installation guide for creating Linux CLI Theta Guardian Node packed into a ready made docker container
- Menu based commands for installing and starting the node as well as retrieving status/sync information
- Includes an automated command line fix for the “Theta still syncing” issue which is one of the largest issues users have faced

Links : [GitHub](#)

Solidity Developer (428 Athletics/WarpDeFio.io)

Richmond Heights, OH (remote)

May 2022–August 2022

Clean/rebuild Vision mobile and web apps

- streamline build and deploy process;
- remove legacy code well as adding new features and structure at a rapid pace
- Integrate SendWyre/Plaid to mobile apps and websites in order to purchase crypto with fiat
- integrate Bitcoin lightning to mobile apps and websites

IAM Consultant - Apex Systems (First Energy)

Akron, OH and Glen Allen, VA (Remote)

July 2020–Oct 2020

Analysis and recommendation work for a large scale user account cleanup and credential vaulting project.

- Examined several IAM related data sources including on prem Active Directory, Azure AD, Microsoft Identity Manager, SAP HR, CyberArk DNA Scans and BloodHound/Neo4j GraphDB
- Created a .net core program to export all Active Directory and Azure AD accounts and attributes to MySQL in relational format
- Built a custom .net web report portal showing overall system recommendations, data source reports and any reference material used

IAM Engineer - StoneX Group (formerly INTL FCStone)

West Des Moines, IA

May 2018–April 2020

Lead several projects to add Multi-Factor Authentication, SSO and risk based login to vendor applications and custom trading platforms using the SecureAuth platform.

- High pressure and visibility on MFA projects as an agreement with Goldman Sachs to do new business was pending this project’s completion
- Projects implementations included Salesforce, ServiceNow, VMWare Virtual Desktop, Cisco VPN (Radius), CyberArk Admin, AppTio
- Setup Active Directory authentication with risk based login analysis and MFA for the CyberArk web interface. Followed best practice recommendations according to NIST guidelines to implement the solution.
- Worked with infrastructure, networking and security engineers to clean and optimize several components key to IAM systems including F5 load balancing and session handling, DNS, Firewall/port configuration and proper SSL and Signing certificate configuration.



- Trained and mentored staff in several US regions, London, Singapore and Bengaluru

IT Lead Solutions Developer - Wellmark BCBS

Des Moines, IA

Oct 2007-May 2018

Worked collaboratively on custom built IAM systems including on prem and external Application Security, User Provisioning and Single Sign-On systems.

- Designed the Web UI for the company application security and user identity system which included all employees and customers, role configuration (RBAC) and all partner organizations
- Worked with team members and security architecture on Active Directory integration and SQL database design
- Designed the company IDP SAML 2.0/SSO system which integrated with application security and user id system
- The SAML applications included Salesforce, Workday, Remedy, DocuSign, CornerStone, CVS Caremark, WebMd, DoctorOnDemand and more
- Technologies used included Asp.Net MVC, C#, Javascript, MS SQL and Active Directory

Applications Developer 3 - American Enterprise Group

Des Moines, IA

Feb 2006-Sept 2007

- Upgraded the sales system to allow new agents to sell products immediately where in the past they had to wait one week which saved time and added revenue
- Created a .net web querying tool to interact with DB2 databases

Software Developer - TMC Transportation

Des Moines, IA

Nov 2000-Jan 2006

- Created several ASP.Net applications including a driver training system used to track new driver progress from the recruiting and hiring process to the 8 week training process which is still in use today
- Created mapping systems with SVG technology capable of plotting a driver's position on a map using coordinates sent from their Qualcomm satellite positioning; this was used to help visualize how to optimally match drivers to customers in need and show routing info;

Education

Iowa State University, Bachelor of Science in MIS