

# Michael Welnick

Software Developer

## WORK HISTORY

Site Reliability Engineer,  
Northrop Grumman (contract), SCOTTSDALE AZ

October 2022  
PRESENT

- Spearheaded adoption of Docker/Podman containerization practices within the department
- Leveraged IaC tools such as packer and ansible to automate deployment of VMs in VMware vCenter
- Designed CI/CD developer pipelines in GitLab that integrate with other tools like Vault and Jira
- Architected on-premisis SSO authentication scheme using Keycloak that integrates with enterprise SAML
- Deployed and maintained on-premisis developer services in air-gapped, high security environments
- Created an internal developer portal and auth system with Remix and Prisma that manages VDI connection/lifecycle

Software Engineer,  
LeaseHawk, SCOTTSDALE AZ

March 2022  
October 2022

- Developed event driven software utilizing AWS Lambda functions
- Deployed PostgREST API with Identity Server integration using a lambda authorizer function
- Designed Azure Dev Ops yaml pipelines for front end and back end deployments
- Wrote scripts and queries to manage and Elastic Cloud indexes and analyze application data

FOUNDER,  
MYNDBYTES, SCOTTSDALE AZ

APRIL 2021  
March 2022

- Worked with clients to develop software under a contract basis
- Used kubernetes to create a clustered deployment environment in Amazon AWS
- Helped client assess employee productivity and third party scope of work estimates
- Aquired hardware and managed deployment of a 2.1 Petahash SHA256 mining operation

SENIOR .NET ENGINEER,  
DIGITAL AIR STRIKE, SCOTTSDALE AZ

JULY 2020  
APRIL 2021

- Developed a highly parallel messaging API that handles SMS MMS and Email messages and campaigns for 2000+ clients
- Architected the central database, API, and functions for collecting and serving social reviews
- Utilized cloud infrastructure including azure durable functions and cosmos to implement massively scalable services
- Integrated DevOps technologies including azure dev ops to streamline development processes

SOFTWARE DEVELOPER (C# .NET),  
REMITTER INC, TEMPE AZ

JULY 2019  
APRIL 2020

- Designed ASP.NET MVC API endpoints to validate credit and debit card numbers against a card type whitelist
- Interfaced with third party payment gateways to accept payments with credit cards or bank accounts
- Shipped distributed software to Azure using NServicebus and an event driven architecture
- Utilized a NoSQL document storage database (RavenDB) to create responsive backends with high throughput
- Leveraged git flow and github actions to create build pipelines for CI/CD

BLOCKCHAIN/BACKEND DEVELOPER,  
BLOOM PROTOCOL LLC, PHOENIX AZ (REMOTE)

JULY 2018  
JULY 2019

- Architected a service that tracks on-chain ethereum events and atomically updates a database
- Wrote and executed PostgreSQL migration scripts that perform transformations on complex JSONB structures
- Deployed and managed microservices using devops tools including Docker, Docker Swarm, Nginx, and Jenkins
- Designed and Implemented a protocol for securely storing and retrieving encrypted and platform agnostic user data
- Helped develop protocols that protect user data with cryptographic constructs such as merkle trees and hashing

CO-FOUNDER, BLOCKCHAIN DEVELOPER,  
PHOENIX BLOCKCHAIN LLC, PHOENIX AZ

OCTOBER 2017  
JUNE 2018

- Created a C# trading bot utilizing Azure that executes arbitrage opportunities on a decentralized exchange
- Built a dynamic single page app with React that runs on IPFS
- Composed containerized lambda functions with Node.js to run on Docker and AWS
- Developed solidity smart contracts that facilitate decentralized lending and trading on a DEX
- Worked directly with a client to spec out smart contracts that use NFTs to tokenize real estate

- Created promotional websites with ASP.NET MVC for large clients including Samsung, Pepsi, Hersheys, and Sony
- Rearchitected live systems using SSMS without going offline to meet client needs
- Designed a performant TSQL schema for syncing multiple large databases to a data warehouse
- Integrated JSON and SOAP shipping APIs responsible for fulfilling millions of dollars worth of prizes
- Wrote robust stored procedures for assigning codes and sending emails where mistakes could be devastating
- Engineered reentrant message queues utilizing Hangfire for sending tokenized emails and making critical API calls
- Constructed a custom report engine that converts SQL queries to Excel and delivers to clients through FTP
- Optimized SQL queries to remove deadlocks and improve performance
- Converted a react-redux single page application into typescript

SYSTEMS ENGINEER,  
RAYTHEON MISSILE SYSTEMS, TUCSON AZ

June 2014  
September 2015

- Wrote an object oriented test application utilizing C++ hardware interfaces
- Designed the VHDL embedded firmware used to send real-time image data to tactical hardware
- Constructed python scripts to provide automation and optimize time spent on various tasks

SKILLS

TECHNICAL

- |                               |                      |
|-------------------------------|----------------------|
| ■ Podman                      | ■ Red Hat (RHEL)     |
| ■ Gitlab CI/CD                | ■ Docker             |
| ■ Google Cloud, Azure and AWS | ■ VMware             |
| ■ Ansible                     | ■ DevOps             |
| ■ Python                      | ■ ASP.NET            |
| ■ Microsoft SQL Server        | ■ React and Angular  |
| ■ Typescript                  | ■ PostgreSQL         |
| ■ Javascript                  | ■ Git and Subversion |
| ■ Node.js                     | ■ Linux and Bash     |
| ■ Solidity, ERC20, NFTs       | ■ Agile Methodology  |
| ■ NPM                         | ■ Ethereum           |

BUSINESS

- Presenting opportunities for improvement
- Communicating ideas effectively
- Working efficiently with teams
- Producing accurate specifications
- Reliably verifying requirements
- Writing detailed documentation
- Meticulously testing and troubleshooting

PROJECTS AND BUSINESSES

- |                                 |                      |
|---------------------------------|----------------------|
| ■ Cold storage wallet           | ■ Ultra Agent Social |
| ■ Ethereum solidity trading bot | ■ Arduino gameboy    |
| ■ Bitcoin alarm clock           | ■ Kinect tracker     |

EDUCATION

BACHELOR OF SCIENCE, ELECTRICAL ENGINEERING  
ARIZONA STATE UNIVERSITY

August 2010  
May 2014

GPA: 3.9/4.0

- Member of the Golden Key International Honor Society dean's list all 8 semesters
- Graduated Summa Cum Laude