

Kristopher Ruzic

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Education

University of Calgary

2012 - 2017

Experience

Dexcelerate / OpenDex

August 2023 - Present

Fullstack Developer / Solana Engineer for DEX Trading Engine and Platform

- Built fully featured solana trading engine
 - 1 block confirmation time AMM execution engine, supporting stoploss, sell targets and more
 - gRPC based messaging system for communication with microservices across the stack
- Assisted in writing and maintaining axum based backend API, powering charts, autobuy system and advanced wallet analytics
- Designed and implemented solana data indexers in Go, collecting information on different AMM swaps, fund flow and related transaction parsing
- Led devops, supporting large fleet of bare metal servers with wireguard networking
- Database design and optimization for postgres and timescale DB
- Frontend experience using typescript, react, redux and RTK
- Engineered event processing system backed by redis and redisearch processing up to 100,000 messages per second

Cold Bore Technology

February 2021 - February 2023

Infrastructure Software Architect / Senior Backend Developer

- Led initiatives to modernize and revamp backend data acquisition services to increase scalability, reliability and processing speed for IOT data collection
 - Increased data throughput across fleet to over 10,000 messages per second
 - Implemented new data acquisition component in Rust for use on embedded hardware
 - Architected and developed a scalable microservices framework for streaming data on cloud and edge to clients with sub-second delay using RabbitMQ and websockets
- Developed client facing API for providing our customers their data in well-structured formats (python + openAPI / Swagger)
- Managed AWS resources through terraform, assisted in migrating the Docker based cloud platform from EC2 to ECS

Focal Labs

December 2021 - Present

Founder and Lead Developer, building a cross-platform multichain Crypto Wallet for Decentralized Trading and Token on Binance Smart Chain

- Organized company and fundraising rounds to bootstrap development
- Managed team of marketers and developers
- Lead development on NodeJS/Electron application for Windows, MacOS and Linux, using Ethersjs for blockchain connectivity and React for the frontend
- Developed lit.js based web application for managing community fundraising
- Built smart contracts for fundraising and an ERC-20 Token, with 100% unit test coverage using HardHat and Solidity

Vinritech**June 2018 - October 2020**

DLT Developer focused on R&D effort developing a blockchain solution for Oil and Gas Pipeline Asset Management

- Developed prototype DLT applications on top of Corda, Hyperledger Sawtooth and Quorum
- Implemented a test network to simulate a large scale distributed computing network on one system using Docker
- Explored how blockchain and ledger technology could be used to solve logistic issues within the O&G supply chain
- Experimented with multiple consensus algorithms to ensure optimal block building and transaction validation on an enterprise chain
- Parsed through complex and incomplete documentation and provided communication and documentation on the project to stakeholders with varied disciplinary backgrounds

Xyntax Group Inc.**February - May 2018**

Lead Mobile Developer on C# Xamarin apps for Android and iOS

- Designed REST API backend for Xamarin based mobile applications, as well as technical specifications for the authentication system
- Responsible for selecting technology stack for cross platform development
- Developed mobile software for connecting to remote ERP system, including unit tests following the MVVM design pattern
- Implemented Offline Mode, allowing users to operate the app without a network connection for use in remote locations

City of Calgary**May - August 2017**

Internship with the Cloud and Open Source team within the City of Calgary

- Helped write specifications for OSS analysis and deployment
- Assisted in the design of a large scale IOT infrastructure
- Developed, tested and deployed IOT applications on CloudFoundry
- Assessed and evaluated cloud and open source procurements for use within the City
- Researched and tested private blockchains for corporate use based on Ethereum and Hyperledger
- Developed techniques and processes for analyzing and approving Open Source Software for corporate use

MRO Electronic Supply**October 2016 - May 2017**

Part-time job working with a large enterprise codebase using Javascript, JQuery and ASP

- Developed online reports to expose database contents in a user-friendly way to sales and shipping teams
- Helped design and plan future development based on requirements specified by end users
- Utilized HTML5, CSS3 and other modern standards to implement new and useful features to existing codebase

Nexedi SA**May - November 2015**

Six month internship working with an ERP system using Python and JavaScript

- Developed simple method to deploy and install ERP system loaded with big data framework for working on large information sets using Ansible playbooks
- Created "Developer Terminal" for exploring the HATEOAS API on the ERP install to facilitate learning it quicker and to enable developers to build webapps off the API responses
- Worked with and built extensions to the existing ERP
- Daily exposure and usage of ERP, to manage and work on projects, using web-based text editors

and other development tools

Technical Skills

- Very strong knowledge of Python, Elixir, Rust and C/C++, Go
- Android and iOS application development
- Experience in a *nix environment, Windows and Mac OS X
- Linux kernel development
- Proficient with version control software, including Git and SVN
- Web development with JavaScript, jQuery, Rails, Nodejs, Flask and Django
- Embedded systems development (Nintendo console: Wii, 3DS and Switch)
- NGinx and Microsoft IIS Web Server administration
- Frontend UI Design with XAML, Vue and Qt
- C# application development with WPF and Xamarin, .NET Core
- Multiple open sourced Rust crates published
- Blockchain and Smart Contract Development: Solidity, Cryptonote / Monero, Solana

Projects

- **TurtleCoin Tipbot**
 - Open source Discord bot written in Python providing chat room users the ability to instantly send TurtleCoin for no cost using the TurtleCoin network's json_rpc interface.
- **Onigiri**
 - Backend forum software solution providing a REST API, moderation and filtering tools. The software covers the whole backend stack, from individual requests to database operations and api calls, powered by a postgresql database using Diesel ORM and Rocket.
- **Rustofi**
 - Rust library for creating makeshift interfaces using Rofi, a linux menu-building application. Through Rustofi 3rd party developers have created complex applications on top of a simple command line tool.
- **Isotope**
 - FOSS C++ GUI library originally designed for Homebrew on the Nintendo Switch, Isotope now supports Linux and Windows as well. Isotope allows the development of graphical applications with a simple syntax, APIs for event handling, animations and complex layout creations.
- **Reader YC**
 - Fully featured mobile application designed and built in 2 months. The app provides a mobile friendly interface for posting comments, news articles and browsing other submissions. Due to a lack of an official API the application works through parsing html documents and extracting relevant data.