Kristijan Rebernisak

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https://github.com/krebernisak

INTERESTS & PROFICIENCY

I have been writing code, running servers and experimenting with new software since 2004. Most recently the majority of code I have written has been in Java and JavaScript, but I have experience in many other languages and technologies. I am a full-stack developer interested in designing and building scalable distributed systems as well as usable mobile and web clients.

- Proficient in Java, JavaScript and Solidity
- Some experience in Kotlin/Swift, Python and familiar with C, C++, C#, MATLAB, Ruby and many others
- Well experienced in building applications for the Android platform
- Web technologies (HTML5, CSS3, SVG, DOM, AJAX, REST, SOAP, WSDL, JSON, XML)
- Relational databases and object-relational mapping (SQL, Hibernate, JDO, JPA)
- Non-Relational databases (Blockchain, Firebase, Redis, ElasticSearch)
- General knowledge of cryptography and network security
- Tools: Git, Mercurial, Gradle, Maven, Ant, UNIX/Linux
- Object-oriented design, Domain Driven Design, Test Driven Design, Functional programming
- Passion for distributed systems, product design, and agile methodologies

WORK EXPERIENCE

RunningBeta a blockchain research company and private investment vehicle

Co-Founder and Technical Lead, Aug 2017 - Present

- Distributed protocol design and system architecture
- Token economics and mechanism design research and prototyping
- Ethereum smart contract development
- Technologies: Bitcoin, Ethereum, Solidity, JavaScript, TypeScript, Truffle, web3.js, IPFS, React, Redux, Reactive Streams, Python

Tolar HashNET crypto-currency featuring scalable, fast, secure, and fair transactions

Smart Contract Engineer and Technical Advisor, Mar 2018 - Mar 2019

- Advising on and development of smart contract Ethereum infrastructure, used by Tolar for fundraising and HashNET chain migration.
- Technologies: Ethereum, Solidity, JavaScript, TypeScript, React, Redux, Reactive Streams

Bellabeat an Health-Tracking intelligence platform for women

Mobile Team Lead and System Architect, Sep 2015 – Mar 2017

- Lead a team of 10 engineers (iOS, Android, QA)
- High-level system architecture and technology strategy design and implementation
- Native Android mobile app, Bellabeat Leaf, architecture, and implementation
- Core Java shared (Android, Backend, iOS - J2Objc) library architecture, and implementation
- Pushed adoption of functional-reactive programming on multiple projects and platforms
- Technologies: Java, Android SDK, Bluetooth LE, Reactive Streams (RxJava, RxSwift), Firebase, J2Objc, ElasticSearch, Kotlin

ShoutEm mobile app builder

Android Developer, May 2013 - Sep 2015

- Design and develop a hybrid Android/HTML5 mobile app
- Redesigned an Android native wrapper to run the HTML5 application
- Decreased Android code base by 25% after four weeks of work

- Developing features and architecture for an HTML5 application that was deployed to thousands of users on iOS, Android and across mobile and desktop browsers
- Working closely with server team designing backend REST API
- Loyalty module lead developer and architecture design
- Using a local proxy server enabled podcast streaming for US Sprint users
- Assisted in architecture planning and building of an in-house data collecting system
- Technologies: Java, Android SDK & NDK, Apache Cordova, HTML5, CSS, JavaScript, Node.js, ElasticSearch, Ruby, Python

Five Minutes Ltd. now FIVE - Mobile App Design and Development Agency

Android Developer, November 2012 – May 2013

- Developing Android apps for various enterprise clients like Allianz, The Hearst Corporation, Konzum and startups like Fogg Mobile and Visiobike.
- Bluetooth protocol communication with hardware controller used by an electric bicycle
- Ad hoc wifi webcam streaming in MJPEG video format
- Technologies: Android SDK & NDK, Maven, Ant, RoboGuice, Otto, kSOAP 2, Bluetooth, SQL

Real Networks

Java EE Developer, CUEComm, April 2012 - November 2012

- SOAP API backend used by MEP Storefront
- Rewritten from the ground up for better scalability and maintenance
- Extensive testing with SoapUI and JMeter
- Technologies: J2EE, Spring, SOAP, Hibernate, JBoss, Ant, Solr

Java EE Developer, MEP Storefront, February 2011 - April 2012

- Media Entertainment Platform for providing music, ringtones and ringback tones to mobile carrier users
- Designed and implemented features for some major mobile carriers in the US (MetroPCS, Verizon, Sprint) and EU
- Implemented SSO for clients applications using Oracle OpenSSO Fedlet
- Technologies: J2EE, JSP, SOAP, WSDL, JBoss portal, Tomcat, Maven, SAML 2.0

EDUCATION

MASTER OF SCIENCE IN COMPUTER SCIENCE June 2011

Faculty of electrical engineering and computing, University of Zagreb

Graduation Thesis: Eigenphase Based Recognition System for Partially Occluded Faces

- This approach combines a Principal component analysis (PCA) with Linear discriminant analysis (LDA) using Fourier transform phase information to extract the facial features and reduce the dimensionality of the feature space
- Written in MATLAB and tested on AR Face Database and XM2VTSDB

BACHELOR OF SCIENCE IN COMPUTING July 2009

Faculty of electrical engineering and computing, University of Zagreb

BSc Thesis: Hand-written Alphanumerical Character Recognition

- Pattern recognition classification of 30 Croatian letters and numbers from 0 to 9
- Contour features were extracted using Fourier and Granlund descriptors
- K-nearest-neighbor (kNN) classification
- Written in Java

SIDE PROJECTS

KiM (www.kimtoys.com, www.kimtrgovina.hr) - 2009
- ▸ Online catalog and content management system (CMS).
- ▸ Running on Google App Engine platform.
- ▸ Written in Java on Struts 2 Framework using Struts Tiles, Java Data Objects (JDO), Apache Lucene and other.
- ▸ Redeployed as a new website in 2015 using Magento v1.8.1 e-commerce platform, running in Docker containers on Digital Ocean
- ▸ Updated to Magento v2.1.9 in 2017, running in Docker containers on Google Compute Engine