# Károly Szántó

#### Personal Data

PLACE OF BIRTH: Popesti, Bihor, Romania

DATE OF BIRTH: 14th of July 1985

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#### **WORK EXPERIENCE**

# OCTOBER 2018 PRESENT

#### Lead Developer at BRICKSHARE, Copenhagen, Denmark

The first and only online investment platform in Denmark, where you can invest in real estate and become a co-owner of a given rental property.

I have joined Brickshare out of sheer passion to become part of great team that creates an innovative platform as an alternative way to do property investment. I have started as a Senior Engineer and ever since February I am acting as Lead Developer.

I am in charge of leading the development team to success, while working in close collaboration with the CTO and the rest of the management team. I am directly involved designing and developing the financial software behind our investment funds like the owners books, automated legal and compliance reports (sent on a daily basis), dividend payouts and tax reporting. To mention the tech-stack and a few tools we use are: NodeJS with Typescript, React with Typescript, Kubernetes in Google Cloud, Cloud Functions, MySQL, etc

#### FEBRUARY 2013 SEPTEMBER 2018

#### Technical Manager at 3PILLAR GLOBAL, Timisoara, Romania

A leading technology services provider and software product development company.

To list a few of my responsibilities as a technical manager: kick-off projects for various clients, drive product decisions with consideration of long-term maintainability and flexibility, managed project roadmap, manage relationship with stakeholders, build high performing teams and carry out line management duties, drive company culture, help define architecture and drive quality standards, occasional coding, etc

During my last engagement at 3Pillar, I was leading a team which helper defined & develop products for Carfax. Some of the main technologies used in the project I'm currently working on are serverless framework, AWS Lambda (with nodejs), API Gateway, React+Redux. The previous product we have built had Spring-Boot for backend, React+Redux for frontend & Docker for deployment.

Before Carfax, I worked as TM on native mobile technologies mobile technologies. I have been leading a team of 14 people (devs & QA) developing a couple of native Android & iOS newsreader applications for THE TELEGRAPH. My role as a TM is split as Technical Lead (TL) for the Android team (70% of my time) and as a Manager of the entire team (30% of my time) while the technical leading role for the iOS team is coverd by another team mate. Throughout the engagement with The Telegraph, we have successfully released two apps: The Telegraph Daily UK Edition (iTunes, Google Play, Amazon) & Telegraph Live News Mobile App (iTunes, Google Play)

Before this engagement, I was involved in a short collaboration for an Android project with GEICO. My first assignment as a technical lead was a project is a Microsoft Share-Point client implemented natively on both Android and iOS platforms.

Some of the responsibilities I have as a technical manager include: coordinating a team (dev & QA), overall architecture of the system, constant communication with the client to make sure we are building both the right product & the product right, actual task development, yearly reviews of the people I work with, mentoring, coaching, involvement in company level decions, etc.

I have recently started to develop my skills as a public speaker. One of my achievements was delivering a speach/workshop at MobOS <a href="http://romobos.com/3rd-edition/speakers">http://romobos.com/3rd-edition/speakers</a>, promoting the reactive programming paradigm as a revolutionary way to develop Android apps.

#### AUGUST 2012 FEBRUARY 2013

# Senior Software Engineer at 3PILLAR GLOBAL, Timisoara, Romania

As my second assignment in 3PG I was involved in the development of Spring Data SimpleDB, an in-house opensource project. The Spring Data SimpleDB module aims to provide a familiar and consistent Spring-based programming model for Amazon SimpleDB while retaining domain-specific features and capabilities. Key functional areas of Spring Data SimpleDB are a POJO centric model for interacting with a SimpleDB domains and easily writing a Repository style data access layer.

GitHub (https://github.com/3pillarlabs/spring-data-simpledb)

As a first assignment in the company, I have worked as a Senior Software Developer on a market inteligence project employing several Java technologies in the backend (Hibernate, Google Guice, Apache Shiro) and JavaScript technologies in the frontend (jQuery, Backbone, Bootstrap). I have been responsible with development tasks in both in backend and the frontend projects.

# FEBRUAY 2012

#### Programmer at NOITSO, Copenhagen, Denmark

**JULY 2012** 

A company focused on delivering business-critical IT solutions, helping companies to optimize their workflows.

At noitso I worked as a developer focused on C# and ASP.NET and a few technologies .NET, ADO.NET Entity Framework, Windows Workflow Foundation

## FEBRUARY 2011

## Programmer at PIT LAB, IT University of Copenhagen

**JULY 2012** 

The Pervasive Interaction Technology Laboratory hosts research projects run by the faculty of the IT University of Copenhagen and collaborating institutions.

My main responsibilities in the lab were to fulfill technical tasks in the MONARCA Project, being constantly involved in the development, maintenance and testing of the *Android client application*, the *infrastructure* (including server management) and of the *web application*. The central infrastructure consists of a server running couchDB, and apache server. Each user has an Android enabled device running the client application and a mobile version of the couchDB, linked to the couchDB instance running on the central server.

Besides the MONARCA Project, I was also involved in ad-hoc programming tasks, as help in other projects was required.

## AUGUST 2010 MAY 2007

#### Software Developer at Océ srl, Timisoara, Romania

Océ, Netherlands based company, is a leading international provider of innovative digital printing systems, software and services for the production, reproduction, distribution and management of documents. Supporting the workflow solutions are Océ digital printers and scanners, considered the most reliable and productive in the world.

# Tcl/Tk developer

Responsible for the development and maintenance of a tool used for automated execution of test cases. The tool and the associated scrips are developed in Tcl/Tk. Also part of the responsibilities was the update of the project documentation: design papers, interface descriptions and user manuals.

# Java developer

Part of the team developing the graphical user interface for the touch-screen based Océ printers. Enhanced the functionality and refactored existing code. Responsible with the development of graphical elements and custom *Swing* components.

# **PUBLICATIONS**

#### 2013

Designing mobile health technology for bipolar disorder: a field trial of the monarca system

(available on ACM)

Jakob E Bardram, Mads Frost, Károly Szántó, Maria Faurholt-Jepsen, Maj Vinberg and Lars Vedel Kessing. Designing mobile health technology for bipolar disorder: a field trial of the monarca system. In Proceedings of the SIGCHI Conference on Human Factors in Computing Systems. 2013, 2627–2636

#### 2012

The MONARCA Self-assessment System:

a persuasive personal monitoring system for bipolar patients (available on ACM)

Jakob E Bardram, Mads Frost, Károly Szántó and Gabriela Marcu. The MONARCA self-assessment system: a persuasive personal monitoring system for bipolar patients. In Proceedings of the 2nd ACM SIGHIT International Health Informatics Symposium. 2012, 21–30

#### 2011

The MONARCA Self-assessment System:

Persuasive Personal Monitoring for Bipolar Patients

(available on IEEEXplore)

M Frost, G Marcu, R Hansen, K Szaanto and J E Bardram. The MONARCA self-assessment system: Persuasive personal monitoring for bipolar patients. In Pervasive Computing Technologies for Healthcare (PervasiveHealth), 2011 5th International Conference. 2011, 204-205

## **EDUCATION**

# SEPTEMBER 2010 AUGUST 2014

Master of Science in IT, Software Development and Technology IT University of Copenhagen, København, Denmark

Specialisation: Pervasive Computing

Thesis: An Environment Simulator for Mobile Context-Aware System Design

Thesis Project: EgoSim (https://github.com/ksza/EgoSim)

# 20042009

Diploma Engineer in Systems Engineering and Computers Engineering, "Politehnica" University of Timisoara, Romania, College of Automation and Computers.

Thesis: Automation of Complex Design Flaws Detection. An Eclipse plug-in which detects design problems in projects and gives restructuring hints based on design patterns.

## 2000 2004

Class of Mathematics-Informatics at the "Mihai Eminescu" National College, Oradea, Romania.

Project: File Manager Application (https://github.com/ksza/KNavigator). A clone of the well known DosNavigator file manager

# **CERTIFICATIONS AND TRAININGS**

JANUARY 2010 | Sun Certified Programmer for the Java 2 Platform, Standard Edition 6.0.

2007 | Test and Validation course, by Océ.

2005 Attended and successfully graduated the first Cisco Certified Network Associate module.

# UNDERTAKEN PROJECTS

#### Peggy - Your personal assistant while Biking, Running or Driving

Play Store:(https://play.google.com/store/apps/details?id=com.ksza.peggy)

Peggy is your personal assistant while you are engaged one of the activities which are part of your daily routine: biking, running or driving. If you receive a phone call and you miss it or reject it and if Peggy detects you are engaged in one of the activities listed above, Peggy will automatically send an SMS to the caller with a custom message configured for each type of activity.

#### **JCAF**

#### The Java Context-Awareness Framework

Code: (https://sourceforge.net/projects/jcaf)

Paper: (http://sourceforge.net/projects/jcaf/files/documentation/RESTful\_ jcaf\_for\_Android.pdf)

Context-awareness is a key concept in ubiquitous computing. JCAF is a Java-based context-awareness infrastructure and programming API for creating context-aware applications on the J2SE platform. I have extended the framework to support the development of context-aware applications on the Android platform by implementing a communication mechanism based on RESTful web services (using Restlet), as an alternative to the existing RMI based communication. I demonstrated my work with an Android application written on top of the extended framework.

## Realms - Creating Location-Based Services through Configuration

Paper: (http://itu.dk/people/ksza/reports/realms\_project\_report.pdf)
Code:(https://github.com/ksza/itu\_realms\_project)

An an end-user programming system - Realms - that allows users to augment physical locations with digital information. With Realms, users can augment physical locations with information through a web-interface centered around a simple map. The information is thereafter made available on the mobile phone application depending on basic rules and the behavior of the mobile phone user.

#### Jolie

#### Java Orchestration Language Interpreter Engine

(http://www.jolie-lang.org)

A programming language based upon the service-oriented programming paradigm, suitable to create new services from scratch or to compose existing ones in order to obtain new functionalities.

I have contributed to this project implementing a few missing operators (+=, -=, /=, \*=) and implementing a new communication protocol based on JSON-RPC.

#### OTHER PROJECTS

You can find out more about the rest of my projects browsing my GitHub https://github.com/ksza?tab=repositories or Bitbucket https://bitbucket.org/KarolySzanto repositories.

# TECHNICAL SKILLS

PARADIGMS Object-Oriented, Functional, Aspect-Oriented, Data-Driven, Reactive

EXPERIENCED Android, Java, Javascript

CAN MANAGE C#, Delphi

ENCOUNTERED C, C++, Tcl/Tk, Ruby, Scala

TECHNOLOGIES couchDB, Flayway, Hibernate, JSF, JSP, MongoDB, MySQL, nginx, NodeJS,

PostgreSQL, ReactiveX, Spring-Boot, React, Redux, Swing, Vagrant,

Docker, Kubernetes, AWS Lambda, Google Cloud Platform

AUTOMATION Spock, Appium, Espresso (Android), Selenium

# LANGUAGES

ROMANIAN Mothertongue

HUNGARIAN Fluent ENGLISH Fluent

# ABILITIES AND APTITUDES

Ability to work under pressure. Creativity, initiative and the ability to work both independently and as part of a team. Good sense of humour.

# INTERESTS AND ACTIVITIES

I enjoy sports, playing different kind of musical instruments (guitar and didgeridoo), traveling and culinary arts.

# ABOUT THIS CV

This Curriculum Vitae is written in  $\text{ET}_{e}X$ . You can find the source code on GitHub at https: //github.com/ksza/Curriculum-Vitae.

## REFERENCES

Available upon request.