Zsolt Szilárd Sztupák

Bromley, Kent, BR1, UK
✆ +44 777 66 26 115
✉ mail@sztupy.hu
⬙ sztupy.hu
⊕ github.com/sztupy
in linkedin.com/in/sztupy
stackexchange.com/users/41583/sztupy
careers.stackoverflow.com/sztupy

Personal profile

I am a polyglot developer who likes challenges and is never afraid of diving into deep territories to get a better understanding of the big picture.

During my career I've been involved with many frameworks, theories, and programming languages both as part of my professional work, and just for entertainment. This includes most aspects of the industry from initially laying down the foundation of a new application and implementing the solution even to things like physically soldering parts onto devices.

I'm always keen to learn more every time – even if it involves debugging and reverse-engineering – and I'm always happy to pass on my knowledge to anyone who wants to learn more.

Experience

Gamesys Ltd **Java Developer, Devops Engineer**, *London*, UK, 2016-.

Technologies used: Java, Java 8, Python, Dropwizard, Ansible, Docker, OAuth2, CentOS, Kubernetes, Kanban

Main responsibilities:
○ Managing the GoCD pipelines that handle the CI/CD process from building the components to deploying them to the staging environments
○ Managing the internal staging environments, and the puppet and ansible scripts that provision them
○ Helping other team and company members with issues related to the build pipeline and the development environment
○ Developing changes for the microservice applications of the platform vertical

Major achievements:
○ Upgrading the internal framework to Java 8
○ Upgrading the deployment scripts to Ansible 2.1
○ Investigate the options, and implement a spike on how authentication should work between the backend and the members

Gamesys Ltd **Full Stack Developer**, *London*, UK, 2013-2015.

Technologies used: Ruby, Rails, Java, Dropwizard, Active Directory, DB2, MySQL, Docker, Puppet, Ansible, Scrum, Neo4J

Main responsibilities:
○ Adding fixes and new features to the the internal customer support application built in Ruby on Rails
○ Change and add new features to the backend applications written in Java
○ Teaching ruby to the rest of the team members
○ Helping other team and company members with issues related to git, ruby, java and docker
○ Active member of the API Team to help create a standardised API for the backend services

Major achievements:
○ Design and implement the two factor authentication support for member logins
○ Upgrading the applications from Ruby 1.8 to 1.9 and 2.1
○ Upgrading the applications from Rails 2.3 to 3.0 and 3.2
○ Change the deployment of the application to a docker based deployment model

Cancellar Informatics LLP

Owner - IT Manager, *Budapest*, Hungary, 2010-2013.

Owner of small umbrella company employing 3-5 people. Handling contacts with client, accounting and recruitment. Working for the following companies:

○ BME-AutSoft Ltd.

Technologies used: Java, Linux, GSM/AT commands, Android SDK, Android NDK, Android platform, OpenCV

- Main responsibilities:
  · Acquiring low-level GSM engineering information from the radio firmwares of Samsung-made Android smartphones
  · Android platform building for an i.mx5 based e-ink device.
  · Changing the platform code to support the specialities of the e-ink display (like removing visual animations, or creating an e-ink friendly keyboard application)
  · Creating applications that can recording voice calls and measure voice call quality
  · Creating applications using OpenCV to process the image of the camera in real-time
- Major achievements:
  · Reverse-engineer the firmware of Samsung Galaxy S, so it could be used to record calls and measure voice quality
  · Reverse-engineer the firmware of the i.mx5 e-ink device, to make it possible to change the firmware as required

○ Famillio Investment Ltd.

Technologies used: PHP, Symfony, MySQL, JQuery, node.js, REST, SOAP, Facebook API, git

- Main responsibilities:
  · Creating and administering the PHP/Symfony based insurance broker web-site of the firm.
  · Writing clients for various third-party web services
  · Gathering user information using Facebook Graph API
  · Creating reports based on user supplied data
  · Creating and administering sister-sites
  · Keeping the business logic up-to-date with the constant changing need of the insurance companies
  · Keeping the always-changing interfaces with the insurance companies' web/services up-to-date
- Major achievements:
  · Designed and built the complete frontend site from ground up in only a few months
  · Designed and built a DSL to easily manage the specific quote formulas of the insurance companies

○ V-TÁV R&D Ltd.

Technologies used: 8051, ARM, NMEA, GSM/AT commands, Ruby on Rails, node.JS, PostgreSQL, Google Maps, OpenStreetMap

- Main responsibilities:
  · Programming 8051 and ARM based GPS devices
  · Creating a new firmware for the devices, that fits the needs of the company
  · Creating the web front-end of the product
- Major achievements:
  · Completely reverse-engineer the firmware of the demo devices
  · Finding and fixing issues in the schematics of the original device

National Audiovisual Archive – Neumann Ltd.

Software engineer, *Budapest*, Hungary, 2008-2010.

Technologies used: Ruby, PHP, Java, Tamino XML Server, OAI-PMH, Dublin Core

Main responsibilities:
○ Supervise the development of a new product made by another company
○ Gathering requirements and writing specifications to the new product
○ Creating scripts to download and display recent events that are probably important to the archive
○ Creating apps to ease the archiving of the national radio stations
○ Developing a MPEG-1 Layer II based audio cutter to be used by the archive
○ Building various other XML based applications

Major achievements:
○ Finding common issues with the workflow of the company and developing small in-house products, to ease some of the repetitive tasks occurring in the video archive
○ Creating in-house patches for the old product, that didn't had any kind of APIs
○ Creating an app that would determine the exact time a show started on television

Eötvös József College · **System Administrator**, *Budapest*, Hungary, 2007-2009.

Technologies used: Linux, Windows Server, Active Directory, Kerberos, Ruby on Rails, Debian, Gentoo

Programming tasks:
- Developing the intranet site of the Eötvös József Collegium using Ruby on Rails
- integrating the site with Active Directory

System Administration tasks:
- Building and administering a Windows Server 2008, Gentoo Hardened Linux and Endian Firewall based system
- Solving their interoperability issues using Kerberos and LDAP

Major achievements:
- Re-cabled the whole site to use UTP CAT-6 cables
- Established full Wi-Fi coverage in the institute

Eötvös Loránd University · **Undergraduate Teaching Assistant**, *Budapest*, Hungary, 2006-2009.
- Undergraduate Teaching Assistant in the following courses for BSc Computer Science students:
  - Introduction to Programming I, II (Formal verification based on Dijkstra's theorems)
  - Compilers I, II (x86 assembly programming and introdutction to formal languages)
  - Operating Systems and Hardware Architecture
  - Functional Programming I (Introduction to Haskell programming)
- Helped writing one of the lecture books titled "Introduction to Programming"

Personal Open Source Projects

NHaml View Engine – NHamlSense, 2010.

Collaborating on the NHaml View Engine for ASP.NET MVC, including adding IntelliSense support for the view engine

Technologies used: C♯, F♯, CodeDom, ASP.NET MVC

Shaml Architecture – ASP.NET MVC for Mono, 2010.

Creating a version of ASP.NET MVC with NHibernate that works under Mono environments

Technologies used: C♯, ASP.NET MVC, Mono, NHibernate, Fluent NHibernate

Lua 5.1 Decompiler, 2009.

A decompiler and disassembler for compiled Lua 5.1 scripts

Technologies used: Lua, C, Windows Mobile

Magic Lantern, 2011.

Porting the firmware to Canon 60D; Adding lua and loadable binary plugins support

Technologies used: ARM, C, Lua, Reverse Engineering

Education

MSc · **Budapest University of Technology and Economics**, Software Engineering, Budapest, Hungary, 2012-2014

BSc · **Eötvös Loránd University**, Computer Science, Budapest, Hungary, 2004-2009
BSc in Computer Science – 264 ECTS – Excellent grade

Other projects

University Projects
- **AMORG** Member of the Applied Mobile Research Group. Involved in projects including Android platform building and OpenCV based image processing
- **HypereiDoc** Creating a collaborative document-editing system, to be used by phylologists to digitalize ancient greek texts.

Android Projects
- **USB Host Controller** Application for managing USB devices
- **AllwinnerMod** Application for managing Allwinner A10 based tables
- **USB host mode kernel** for Samsung Galaxy S and variants
- **Android kernel and system building** for Allwinner A10 tablets

Open Source Projects
- **ADB PuTTY** PuTTY enhanced with the ability to connect to Android devices
- **IanOut** *2000-2005* Developing a Visual C++ and SDL based RPG game

Others

Conference talks, lectures

○ **Babes-Bolyai University**, Cluj-Napoca, Romania, *2007*
Visiting lecturer on Designing and programming embedded systems

○ **National Students' Research Conference** *2008-2009*
- Digitalizing, editing and publishing ancient greek texts (*national 3rd place in 2009*)
- Managing layered files using XML (*national 2nd place in 2009*)
- ORM based methods to link different types of databases (*local 2nd place in 2009*)

IT interests

○ **Programming languages** Ruby, JavaScript, Java 8, various functional languages
○ **Web-development** Ruby on Rails
○ **Mobile-development** Android
○ **Operating systems** Ubuntu linux, CentOS
○ **Information systems** SQL: MySQL, PostgreSQL, DB2
○ **DevOps** Ansible, Docker, Puppet, Kubernetes
○ **Embedded systems** Programming PIC, 8051 and ARM based microprocessors
○ **Others** LaTeX
○ **Competitions**
- ACM (participant in CERC *2006*, *2008*)
- Constant participant of Google Code Jam, and Facebook Hacker Cup competitions
- Participant of the finals of the 11th and 13th Challenge 24 *2011, 2013*
- 1st place in the National Ericsson C++ Programming Contest *2012*
- 2nd place in the National BankTech Java Challenge *2014*

Others

○ **Language skills**: English (C1), German (B2), French (A1), Hungarian (native language)
○ **Driving Licence**: Categories A (since 2011) and B (since 2003)