



DAN DANIEL
Software Engineer



CONTACT INFORMATION



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PROFESSIONAL SKILLS



C#, ASP .NET, MVC, Entity Framework, WCF
Identity Framework, Linq, SignalR, IIS, AD



Java (J2EE, J2SE), Hibernate, JSP,
Oracle GlassFish Server



Android Application & IME Development
(API 16+)



JavaScript, AJAX, JQuery, Bootstrap
HTML5, CSS3



TFS, TFVC, Git, Subversion



MySQL, MSSQL, Oracle DB
MongoDB, Elasticsearch



PROFESSIONAL INTERESTS



Object-Oriented Design
Programming Languages, Modelling



Industrial Software Systems



Software Quality, Software Reuse



Android Application and Framework
Development



LANGUAGES



ENGLISH
★★★★★



HUNGARIAN
★★★★★



ROMANIAN
★★★★★

I am Interested in software- engineering, evolution and reuse. Passionate about helping developers gaining more results with less effort. Participating in research projects hoping to gain a deeper understanding of the topics and applying ideas in real life large-scale software systems.

I Obtained **Master of Science degree** in **Information Technology**, have **6+ years** of experience in **Software Engineering** and most industrial experience in **C#, ASP.NET, MVC, WCF, SignalR, Javascript HTML5 and CSS3**.

In my free time I like to do open-source development, help developer communities, join programming contests, jog, cycle and hike.



WORK EXPERIENCE

SOFTWARE ENGINEER - SYSTEM SPECIALIST



ST Electronics, Singapore



Feb 2014-Current

Responsibilities: Framework development to enhance web system development speed and stability. The framework ECP (Entity Code Production) was **based on own developed generative programming language** which helped **revolutionize how we build software systems**. The core of the framework consists of software modules based on proven best practices and design patterns. These modules consists of solutions ranging from SQL, C#, HTML, Javascript to other scripts and config files which are represented as parametric templates. The templates are applied on business-logic specific entities, and **compiled into complete N-tier web system's** deployable source code. Using our framework the development teams completed their tasks in **half the time with half the staff, saving 75% costs** on the development phase. Our team grew from one person the eight, and helped in **completing over 20 projects** which include public safety, medical related, resource management, business intelligence and data analytics projects as well. The framework **has won Innovation award and Outstanding EVA Initiative Award** in 2016 for **greatly reducing development time and costs, and improving software stability**.

RESEARCH ASSISTANT



School of Computing, National University of Singapore



Feb 2012 - Nov 2013

Responsibilities: Developing and evaluating tools and technologies that improve code maintainability and understandability in industrial software systems. **Implemented a technology (VCL, Variant Configuration Language), programming language and its compiler for applying adaptive reuse**. The development was done in Java. We demonstrated VCL's potential to reduce program complexity by eliminating redundant codes in a publication titled "Configuring Software for Reuse with VCL" which **was published** in an international conference (SPLST '13). **We achieved 77.2% code reduction in the well-known Java Buffer Library** by using VCL templates, making the code easier to read and enhance.

We conducted a case study using the **linux kernel code and achieved a 61% code compression** by refactoring cloned code instances into generic VCL templates. This allowed us to greatly enhance maintainability of the input driver code in linux kernel code. The study later **has been published** with title: "Managing Big Clones to Ease Evolution: Linux Kernel Example" in an international conference (IEEE FEDCIS'16).

RESEARCH ASSISTANT - TEACHING ASSISTANT



Department of Software Engineering, University of Szeged



Feb 2010 - Jan 2012

Teaching: Programming I (seminar)

Basics of Object- Oriented programming, Java programming language

Research Assistant (from June 2010)

Responsibilities: Evaluating software quality measurement practices, preparing software system quality reports using automated source **code analysis and providing refactoring suggestions**.

Java web-, desktop application and SOAP web-service development. **Automated collection** of information about software systems **from various source code repositories** and providing information about the current quality state of the system. Providing automated **design pattern** usage and **refactoring** option suggestions based on design



EDUCATION

MASTER'S DEGREE - SOFTWARE INFORMATION TECHNOLOGY

 Faculty of Science and Informatics, University of Szeged, Hungary

 Sep 2011-Jan 2014

Thesis : **Towards Better Variability Management in Industrial Software**

BACHELOR'S DEGREE - SOFTWARE INFORMATION TECHNOLOGY

 Faculty of Science and Informatics, University of Szeged, Hungary

 Sep 2007-Jun 2011

Thesis : **Object Oriented Software (Java, C++ and C#) structure visualization interactive tool**



RESEARCH IN COMPUTER SCIENCE



Scientific Students' Association Budapest 2013

Towards Better Variability Management in Industrial Software Systems



SPLST 2013 - 13th Symposium on Programming Languages and Software Tools

Configuring Software for Reuse with VCL



FedCSIS - Federated Conference on Computer Science and Information Systems,

36th IEEE Software Engineering Workshop 2016

Managing Big Clones to Ease Evolution: Linux Kernel Example



OTHER PROFESSIONAL EXPERIENCE



ART (Adaptive Reuse Technology)

An open-source **programming language and compiler** which allows developers to **manage software variability** and write **reusable code** in general. ART can be pictured as an advanced form of macros that replaces the need for many Variability Management Techniques with a single well-thought out mechanism that is **simple, powerful and fully automated**. ART is used for academic and business purposes as well. A few examples: ART is used for **generating and maintaining Android test codes**, generating **SVG graphics based on XML descriptions**, generating **RTF documents based on predefined templates**, and generating **complete web portal code** as well. For more information visit art-processor.org.



SwipeTap

An **Android input method** developed to improve access to mobile devices **for the elderly and people with disability**. The application is designed to simplify hand movement and **help in typing with lower precision**. It provides **text-to-speech**, **word prediction features** and simple built-in text editor with all features being accessible **with gestures without** the need of locating **buttons** on the screen.

The application **won 2nd prize in Startup Asia Singapore** hackathon. For more information visit www.swipe-tap.com
Currently the application is in testing phase on Google Play.



Food from the Heart SCC Portal

Food from the Heart (FFTH) is a **non-profit voluntary food distribution programme** in Singapore. FFTH supplies food and emotional nourishment to **over 23,000 beneficiaries**. Currently, there are **28 FFTH self-collection centres (SCC)** island-wide, which **help to support more than 4,000 needy beneficiaries** by providing bread and non-perishable food items.

The project's objective is creating a web portal to address increasing operational need for FFTH to have better visibility, **tracking and management of collections** happening in various Self Collection Centres. The system **provides real-time visibility of donations** distributed and collected in various Self Collection Centres, prevent duplicate collections being made, and provide necessary data for decision-making. The portal **provides the ability to manage self-collection centres, operators, beneficiaries, to plan distributions and track issuing of packages** by **scanning** beneficiary ID cards **with mobile phone**.

The system was implemented in C# ASP .NET using MVC 5 with Entity Framework, Identity Framework, and MSSQL database. The SCC Portal is **currently in use by FFTH**.