Inspiratron.org - Natural language processing, machine learning and cybersecurity

Portfolio

by Nikola Milošević - Wednesday, May 15, 2013

https://inspiratron.org/portfolio/

This page is still under construction. Please be patient.

OWASP SeraphimDroid

URL: https://www.owasp.org/index.php/OWASP_SeraphimDroid_Project

Description

OWASP SeraphimDroid is a privacy and security protection app for Android devices. It enables users to protect their devices against malicious software (viruses, trojans, worms, etc.), phishing SMS, MMS messages, execution of dangerous USSD codes, theft and loosing. Also, it enables user to protect their privacy and to control the usage of applications and services via various kinds of locks.

OWASP SeraphimDroid has two aims:

- To protect user's privacy and secure the device against malicious features that may cost user money
- To educate user about threats and risks for their privacy, privacy of their data and security of their device.

Table annotator

URL: https://github.com/nikolamilosevic86/TableAnnotator

Description

TableAnnotator is a tool for annotating tables written in Java. It uses specific annotation schema we proposed that is able to capture information about functions of a cell and inter-cell relationships. TableAnnotator is a tool for extracting annotations from tables in PMC clinical documents in XML format. Now it supports also Daylimed drug label XML format.

Tool does this in a couple of steps. Firstly, tables are decomposed to a matrix of cell objects containing data and information about navigational path (headers, stubs, subheaders).

This project is developed on the University of Manchester as a part of my PhD

Marvin - annotation tool that uses multiple knowledge sources

URL: https://github.com/nikolamilosevic86/Marvin

Description

People are producing more written material then anytime in the history. The increase is so high that professionals from the various fields are no more able to cope with this amount of publications. Text mining tools can offer tools to help them and one of the tools that can aid information retrieval and information extraction is semantic text annotation. In this report we present Marvin, a text annotator written in Java, which can be used as a command line tool and as a Java library. Marvin is able to annotate text using multiple sources, including WordNet, MetaMap, DBPedia and thesauri represented as SKOS.

eZbirka - collection of folk literature and phrases

URL: http://www.ezbirka.starisloveni.com/
Description

eZbirka is a collection of folk literature and phrases such as proverbs, similes and puzzles. This collection is built by using old corpora, but as well by crawling the internet and using natural language processing and machine learning techniques. Also eZbirka provides a platform for crowdsourced updating of this corpus. We hope that this corpus will be useful to linguists in their research.

BrandCheck

Income.io

income.io is a money saving iPad and Android app created by the Prelovac Media. Keeping track of your finances won't be a chore any more. You don't need tutorials, glasses or knowledge in economics. It is easy, user friendly and fun to use.

Description

The idea for the app came out of our frustration with inability to find the app that can help you track your family finances easily. Most of the apps we've seen were too complex, not that pretty and user friendly. We use the app ourselves and we are glad to receive your feedback, both positive and negative, so do not hesitate to contact us with your ideas and suggestions.

Income.io was created with a vision to be simple, yet no simpler than that. Every family member should be able to use it (kids included). Using the app is supposed to raise conscience of the whole family of how important it is to track your finances and be able to save more money in the process. Shortly after you start you should be able to precisely answer the question “Where is my money going?”

Some of the apps main features are the big picture of your finances on the home screen, so you can have easy overview as soon as you start the app, you can add custom income/expense categories, notes and comments. Statistics breakdown by category or family member is available, so you can, compare money spent on a certain category to overall spending and come up with a saving plan that works best for you. You can protect the app with a PIN code and make sure your data is private and visible only to you.

Our little friend Alfred, your own personal financial adviser, will be there for you from the beginning to introduce you to the app and track your progress. Your first goal is to develop a habit of tracking finances. Alfred will give you feedback and advice along the way so you can go from ignorant spender to the master of tracking in no time.

On this project I led the android development team, doing project management, task prioritization and coding.

website: income.io

Technologies: Android, Java, SQLite

Year of completition: 2013.
ManageWP is the world's first and finest all-inclusive WordPress management console that gives users full power and complete control in managing virtually any number of WordPress sites in the easiest way possible.

It has been designed for WordPress users by WordPress users, and it’s purpose is to be the quintessential management dashboard that users will use to take back control of all their WordPress sites with ManageWP’s powerful management, monitoring, backup, deployment, publishing, and security features.

Nikola Milošević was mainly responsible for development of manageWP android application and support.

website: [managewp.com](http://www.managewp.com)

Technologies: Android, Java, SQLite, PHP, mySQL.

Year of completion: 2013

**Stemmer and sentiment analyzer for Serbian language**


URL for sentiment analyzer: [http://www.inspiratron.org/SerbianSentiment.php](http://www.inspiratron.org/SerbianSentiment.php)

Both Serbian stemmer and sentiment analysis provide an API. Contact me if you need more information.

**OWASP Serbia**
OWASP (Open Web Application Security Project) Foundation is a professional association of global members and is open to anyone interested in learning more about software security. Local chapters are run independently and guided by the Chapter_Leader_Handbook. As a 501(c)(3) non-profit professional association your support and sponsorship of any meeting venue and/or refreshments is tax-deductible.

OWASP has about 200 local chapters in most countries of the world. Also under OWASP are developed many applications for security testing, forensics, and guarding networks or web applications. OWASP also publishes best practices and standards securing web applications and security testing.

In year 2012, I have founded OWASP local chapter in Serbia, managing all OWASP activities in Serbia. We organized lectures on computer security and attended several local open source conferences. OWASP Serbia is now becoming co-founder of FLOSS (Free/Libre Open Source Software) union in Serbia.

Website: https://www.owasp.org/index.php/Serbia

**OWASP Anti-malware project**

“Malware is nowadays more than a single enemy: online crime has unified the forces for targeting any online banking customer. Banking Malware is ubiquitous because it’s constantly updated via country-specific configuration files and with modular plugins to fit any banking web application. In addition it can defeat the most sophisticated security protections actually implemented.”

This project is about describing common flaws in security designs that have been adopted for protecting banking websites against malware, as well as a series of best practices that should be considered for evaluating and building better anti-malware solutions. The project will be constantly updated with information taken from Owasp Community, Malware Analysis, Forensic Activities, as well as from any other validated source.

The project delivery will be divided into Two parts. The first part will be a document containing guidelines directed to Banking Web Infrastructures owners. This document will be kept intentionally as short as possible and will have the main goal to raise the awareness on Malware threats and to precisely name a series of checklists that should be taken into consideration to significantly improve website security against malware.

The second part will be a technical study dynamically updated in wiki-style format. The technical study will be the reference for the guidelines contained in the previous document. This study will try to analyze the most sophisticated Malware Techniques used in the 3 most spread Banking Malware families, as well as discuss the effectiveness of different security protections that are thought to be useful against Malware.

The Technical Study will be made up of two teams: MRE (Malware Reverse Engineering Team) and AMTS (Anti-Malware Technology Solutions Team). MRE team will be in charge of studying the malware samples and to inoculate the techniques used against banking Websites; AMTS team will harvest the internet for any Web Infrastructural solution that claims to be Malware Proof for identifying its strengths and weaknesses.

I have contributed to OWASP Anti malware project as part od Malware Reverse Engineering Team, creating documentation and description of several banking malwares in Anti malware knowledge base such as Zeus Mitmo, Shylock and Ramnit.

Website: https://www.owasp.org/index.php/OWASP_Anti-Malware_Project

**Simple generic watchdog**

Simple watchdog that can monitor any kind of file if it is responding and restarts process if it is not responding. Also it contains configuration programme that can configure what is the file that needs to be restarted and what process has to be monitored.

Simple generic watchdog is my solo open source project. It is developed in .NET 3.5 using C#.

Technologies: C#,.NET Framework 3.5

Website: http://sourceforge.net/projects/simplewatchdog/
Svetovid Group Mail Sender

Svetovid Group Mail sender is desktop application that uses SMTP to send e-mail to user group given by TXT file. It could be very useful for PR, FR and other forms of keeping contact with clients.

This is another my solo open source project. Developed in 2010. using .NET framework and C#. In it's basis it is just simple SMTP client. It was able to send mails also as blind carbon copy, so users on list could not see to who else you sent same email.

Technologies: C#,.NET 3.5

website: http://sourceforge.net/projects/groupmail/

Biznismladihsrbije.org

Website: www.biznismladihsrbije.org

Starisloveni.com

website: http://www.starisloveni.com

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