

Zeineb Zhioua

Phd Student in Static Code Analysis at SAP / Eurecom

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[in zeineb-zhioua](#) [zeineb](#) [zeinebzhioa](#)



SKILLS

Methodologies

Master

[scrum](#) | [lean startup](#)

Data Modeling

Advanced

[mysql](#) | [mongodb](#) | [pl/sql](#) | [orm](#)

Front-end Development

Master

[jquery](#) | [angularjs](#) | [sap ui5](#) |
[cross-browser development](#)

Versioning

Advanced

[git](#)

Back-end Development

Master

[node.js](#) | [java](#) | [php](#) | [restful api](#)

Server and Hosting Environment

Master

[linux shell scripting](#) | [apache](#) | [nginx](#) |
[aws](#)

WORK EXPERIENCE

PhD student in Static Code Analysis for the formal verification of security guidelines

at SAP

June 2013 - Current

<http://go.sap.com/index.html>

Verification and Validation of compliance of developed software to security requirements

- Formal specification and verification of security guidelines in software marketplaces and software development lifecycle
- Contribution to the European Funded Project OPTET (OPerational Trustworthiness Enabling Technologies)
- Extension of a Static Code Analysis tool for Java (JOANA)
- Specification and contribution to the Trustworthy Vetting Process project at SAP

Software Engineer at Banque de Tunisie

September 2010 - April 2013

<http://www.bt.com.tn/>

Drive, design and build financial and banking applications

- Design and development of Financial Applications
- Consulting and assessment of Banking solutions

Software Engineer at Telnet

August 2010 - September 2010

<http://www.groupe-telnet.net/index.php/fr/>

Work on a highly challenging projects

- Design and development of a Google Maps based application

End of study Project at Telnet

February 2010 - June 2010

<http://www.groupe-telnet.net/index.php/fr/>

Build the next generation eLearning Platform

- Design and development of an online elearning platform for Telnet

- Technologies: Net, MS SQL Server 2005, C#, Red5.

Internship at Banque de Tunisie

August 2009 - August 2009

<http://www.bt.com.tn/>

Build a DataBase Conversion Tool

- Development of a .Net Data Base conversion tool to Excel and XML formats
- Technologies: XML, .Net, MS EXCEL, C#, MS Access.

Internship at Banque de Tunisie

August 2008 - August 2008

<http://www.bt.com.tn/>

Design and Develop an Internships Management Application

- Design and Development of Internships Management Application
- Technologies: .Net, C#, MS Access.

Internship at Unix Systems and Communication

February 2007 - May 2007

<http://www.unicom.com.tn/>

JEE Recruitment Management Application

- Design and Development of a recruitment management application
- Technologies: Java/J2EE, EJB, Oracle 10g XE.

Internship at Arab Tunisian Bank (ATB)

July 2006 - August 2006

<http://www.atb.tn/>

Development of a Banking Application

- Design and Development of a Special agreement Credit application
- Technologies: VB .Net, SQL Server 2000.

Internship at Centre National d'Informatique

July 2005 - July 2005

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C++ Algebra Application

- Development of an Algebra and Mathematical Analysis application
- Technologies: C, C++.

VOLUNTEER

SAP Developers Conference DKOM Speaker at SAP

March 2016 - Current

Presentation of SAP Business Data Extractor Solution

<http://go.sap.com/index.html>

- Present SAP Business Data Extractor to a group of developers and business deciders in SAP

Co-author in SAP Business Data Extractor at SAP

January 2016 - Current

Brainstorming and Improvement of the SAP Business Data Extractor

<http://go.sap.com/index.html>

- Establishment of the business model for SAP Business Data Extractor
- Participate in meeting with interested customers

Product Manager at myhive

August 2013 - March 2015

myhive is an application to identify users' interests from their social profiles
<http://myhive.strikingly.com/>

- Put in place architecture for web and mobile application
- Develop Node JS, Angular JS and an Android application for the platform

EDUCATION

PhD Student Security at Eurecom / Telecom ParisTech

2013 - Current

Major courses: [formal methods](#) | [mobile applications and services](#) | [system and network security](#) | [secure communications](#)

Master's degree Information Technology at Ecole Nationale d'Ingenieurs de Tunis

2007 - 2010

Major courses: [jee](#) | [uml](#) | [sql](#) | [mvc](#)

BSc. Computer Science Information Technology

at Institut Supérieur d'Informatique

2004 - 2007

Major courses: [c++](#) | [web development](#) | [xml](#) | [algorithms](#)

AWARDS

First place in the InnoDays'2015 event at SAP at SAP Innovation

2015

Development of a Connected Shop Window Project

PUBLICATIONS

Static Code Analysis for Software Security: Problems and Approaches in IEEE

21 July 2014

Developing and deploying secure software is a difficult task, one that is even harder when the developer has to be conscious of adhering to specific company security requirements. In order to facilitate this, different approaches have been elaborated over the years to varying degrees of success. To better understand the underlying issues, this paper describes and evaluates a number of static code analysis techniques and tools based on an example that illustrates prevalent software security challenges. The latter can be addressed by considering an approach that allows for the detection of security properties and their transformation into security policies that can be validated against security requirements. This would help the developer throughout the software development lifecycle and to insure the compliance with security specifications

Towards the Verification and Validation of Software Security Properties Using Static Code Analysis in Computer Science: Theory and Application, Volume 2, N°2,

2014, ISSN: 2336-0984

10 December 2014

Developing and delivering secure software is a challenging task, that gets even harder when the developer tries to adhere to both application and organization-specific security requirements. Different approaches have been proposed to facilitate this task, such as code analysis that aims at detecting flaws in the developed software before it is released and deployed to customer. This paper discusses a number of static code analysis approaches and presents different code analysis tools adopting each a specific analysis technique. These tools are evaluated against a sample code illustrating different security challenges that can be addressed using an approach that helps detecting security properties. The latter can be transformed into abstract security policies that can be validated against explicit security requirements. This would help the developer throughout the software development lifecycle and to ensure the compliance with security specifications.

Security Guidelines: Requirements Engineering for Verifying Code Quality in IEEE

12 September 2016

The development and delivery of secure software is a challenging task, that gets even harder when the developer tries to adhere to both application and organization-specific security requirements translated into security guidelines. These guidelines serve as best practices or recommendations that help reduce application exposure to vulnerabilities, and provide hints about the application’s adherence to high-level and abstract security requirements. In this paper, we present guidelines we gathered from different sources, and we highlight the main issues related to the interpretation and application of those guidelines. We present a first attempt to classify the requirements with the objective of identifying the analysis that should be performed to verify the adherence of the developed software to each of the categories.

LANGUAGES

English

Bilingual proficiency

French

Bilingual proficiency

Arabic

Native Speaker

Italian

Intermediate

Spanish

Intermediate

Chinese

Beginner

INTERESTS

Travel

Skills acquired: [meet people](#) | [discover](#)

Wildlife

Skills acquired: [whales](#) | [sharks](#)