**Yosief W Frezghi**

**Summary**

* Having 4+ years of hands-on experience of implementing Object-Oriented based Software solutions and Web Designing.
* Experienced of technical specifications and work flow developments in Object-Oriented Analysis and Design.
* Extremely proficient with core Java technologies, including but not limited to: multi-threading, sockets, Collections, Java design patterns.
* Experienced in numerous Object Oriented Methodologies, Design Patterns, UML and Enterprise Application Integration.
* Skillful, with deep knowledge of Java, J2EE, JSP, Servlet, JSF, hibernate and Spring Frameworks.
* Experienced with relational database methodologies, design and SQL programming.
* Proficient in all phases of Software Development Life Cycle (SDLC) including Requirements gathering, Analysis, Design, Reviews, Coding, Unit and Integration Testing.

**Skills**

* Programming-Languages

J2EE Frameworks, Core Java ,J2EE • C++ • PHP • VB.Net • JavaScript • Java Beans • JDBC • Swing • Spring • Hibernate • JSP • JSF • MVC • Junit

* Web Technologies

XML •XSL • SAX • DTD • DOM • XML-Schema • AJAX • JQuery • CSS • Tomcat • PrimeFaces • Experience with 2-tier, 3-tier architecture & n-tier architecture

* Databases

SQLite • MySQL • SQL Server • Oracle

* Tools

Eclipse • NetBeans • JBuilder • SVN • JUnit • StarUML • Visual Studio 2005 • Dreamweaver • WampServer • Apache • Crystal Report • Zeliex Obfuscator • Spin • NuSMV

* Platforms & Hardware

Cluster of Computers • LINUX Ubuntu / RedHat • Windows Vista /7 • Windows 2003 Server Source control: Subversion SVN

**Professional Experience**

**Java/J2EE Developer University of Trento , Trento, Italy April 2014 – August 2014**

**Project: BOOK DISTRIBUTION SYS.:**

**Responsibilities:**

* Involved in developing applications using Java and J2EE.
* Developed web application using JSF Framework and developed UI using JSP, JavaScript, HTML, AJAX and CSS
* Agile methodology was applied; MVC design pattern used; accompanied with Hibernate persistence
* Provided design and mentor framework integrated implementation for interactive web application development.
* Provided technical direction with JavaScript, JQuery, Ajax, SOAP & Ant builder tool.
* Played Key role on setting up Apache web service and Deployed the application on tomcat Application Server

**Environment:** Eclipse, Java, JSF, JavaScript, CSS, XML,Spring, Hibernate, JQuery, SVN, Tomcat, (SOAP, WSDL), JSON, JUnit

**Software Engineer, Intern + Thesis Fondazione Bruno Kessler , Trento, Italy**

**Oct 2013 – Mar 2014**

**Project: CODE DIVERSITY: CODE OBFUSCATION & CLUSTERING HEURISTIC TO PREVENT CODE TAMPERING**

**Description:** A common issue for software companies is protecting their programs from malicious users interested in changing the behavior of the source code. An attacker can reverse engineer the program, tamper with the source code (e.g. disabling license-checks), generate a crack as a batch file and distribute it so that all other users will be able to break their own installations. Code Diversity is a protection technique aiming at reducing the spread of cracks (crack sharing) by deploying pair wise syntactically different software instead of the same.

**Responsibilities:**

* Analysis of source code to protect against software attacks (software crack) sharing.
* Obfuscating of original source code to more than 100,000 semantically equivalent but syntactically different obfuscated copies using Zelix Obfuscator tool
* Plagiarism detection tool extended to compute similarity between each pair of obfuscated copies
* Search based meta-heuristic algorithms implemented to cluster and optimize the obfuscated copies based on similarity.
* Clustering minimizes diversity within a cluster and maximizes between clusters
* One copy from each cluster picked up and deployed so that a crack for one copy shouldn’t work for other one

**Environment:** Java, SQLites, Eclipse, Zelix Obfuscator, Redhat, Cluster Of Computers, Redhat, SVN

**Software Developer Galaxy Computer S. & A., Asmara, Eritrea July 2009 – August 2011**

**Project: HOUSING BANK LOAN APPROVAL & PAYMENT SYS. (12/2010 - 06/2011):**

**Description:** The project consists of the modules such as Loan Submission, Loan Processing, Loan Verification, and Loan Authorization. Employees can access customer details and review the loan application and process the application

**Responsibilities: Java/J2EE Developer**

* Involved in developing applications using Java and J2EE.
* Developed front end using HTML, CSS and JavaScript with JSF AJAX and tag libraries.
* Handled events and runtime errors using JSF event listeners and validations.
* Hibernate persistence framework and ORM used to enable dynamic fetching and displaying of various data tables.
* Developed the Validators, Controller Classes and Java bean components.
* Participated in the design and development of database schema and Entity-Relationship diagrams of Oracle database.
* Developed Stored Procedures, Triggers in Oracle to cater the needs for the entire application.
* Designed and built SOAP web service interfaces implemented in Java
* Used Apache Ant for the build process.

**Environment:** Java, JSF, JavaScript, CSS, XML,Hibernate, Servlet, JQuery, SVN, Tomcat 6.0, (SOAP, WSDL), JUnit , Oracle

**Project: HABERIETA NEW/USED ITEMS SHOPPING SYS. (2/2010 - 11/2010):**

**Responsibilities: Java Developer**

* Involved in all phases of Software Development Life Cycle (SDLC)
* Involved in developing applications using Java, J2EE, EJB, JSP and Servlet
* Implement search engine for variety of items
* Developed database schema and SQL queries for querying database on MySQL.

**Environment:** Java, J2EE, JSP, HTML, AJAX, Java Script, SQL, JDBC, XML, Servlet, MySQL

**Software Developer BDHO G. C. Company, Asmara, Eritrea**

**August 2006 – June 2009**

**Project: BDHO CONSTRUCTION PAYROLL SYS.(01/2009 - 06/2009):**

**Responsibility: Java Developer**

* Involved on designing and managed application to operate financial records of salaries for company employees
* Ensures secure access to employee profile details in database server.
* Implement back end business logic for payroll calculations management.
* Developed API for data transaction and retrieval from persistent database.
* Develops SQL procedures for generates reports, and exports spreadsheet data to integrate with embedded apps.

**Environment:** Net Beans, Java,Swing, RDBMS SQL Server 2000, start UML, Crystal tool

**Web Developer Hollywood Internet Cafe, Asmara, Eritrea**

**November 2007 – April 2008**

**Project: MULTIMEDIA AND SPORT NEWS WEBSITE**

**Responsibilities:**

* Developed web application to provide offline sport news for an internet café users to overcome internet connection problem
* Provided multimedia services to users. Multimedia Streaming designed using Windows Media Services
* provided database to store all multimedia contents and sport news

**Environment**: PHP,HTML, CSS, JavaScript, MYSQL, WampServer, Dreamweaver, Windows Server 2003

**Projects**

* Developed a client-server chat application using Java and Java applets, Java Swing used for GUI, Java socket programming used and new brand protocol designed for interactions between client and server, MYSQL database used to store account information, offline messages, buddy list and others. [ Java + NetBens + MYSQL + XML + DIM + JDBC + Swing]
* Auto Spare Parts Inventory System. [NetBeans, Java, RDBMS SQL Server 2000, start UML, Crystal tool]
* Step Recognition in Wireless Body Area Network (WBAN) aimed to identify the manner and speed of the motion of a human subject. [Eclipse, C, Flex Boards, MPLAB ICD 2, HTerm, Matlab, Serial Connection (RS232)]
* Other Academic Projects completed to gain experience after each programming course accomplishment including thesis.

**Education**

* M.S.E. in Computer Science- University of Trento, Trento, Italy.- Jan 2012 – Mar 2014
* B.S.E. in Computer Science - University of Asmara, Asmara, Eritrea. -Sept 2002 – July 2006