FADDY MICHEL

SOFTWARE ENGINEER

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As a Software Engineer with strong Computer Science skills, I have the ability to play the role of a Joker in a team; the person who can perform efficiently in different positions. This is achieved by understanding the fundamentals of the various paradigms of programming languages—Imperative (e.g., C), Object-Oriented (e.g., Java and JavaScript), Functional (e.g., Haskell and JavaScript), Logical (e.g., Prolog), Data-Driven (e.g., awk), etc. This in-depth understanding of the power of languages to manipulate the machine lead to the ability to work in any kind of project; leveraging any stack of technologies or architectures.

Facts

ak standks for Advanced knowledge, ik for Intermediate Knowledge and bk for Basic Knowledge.

Programming: bash (ak), GNU coreutils (ak), C (ik), Java (ak), JavaScript (ak), Python (ik), awk (bk), Perl (bk), SQL (ik), Csound (ik), lilypond (ak), HTML (ak), CSS (ak), LaTeX (ak), M4 (bk), sed (bk), prolog (ik)

Technologies: Git (ak), Unix/Linux (ak), Apache Maven (ik), Gradle (ik), NodeJS (ak), Google Cloud platform (ik), AWS (ik), Adobe CQ/AEM (ik), KDemandware (ik), NetSuite (ik), MySQL (ik), Apache Cassandra (ik), MongoDB (ik), Spring (bk), Grunt (bk), Gulp (bk), Chrome Extensions (ik)

Operating Systems: GNU Linux/Debian (ak), MacOS (ak), Ubuntu (ak), Windows (bk), Android (ik), iOS (bk), JoliOS (bk), Chrome OS (ak), Firefox OS (bk)

Projects

OCT 2018--PRESENT**Software Engineer of Marmiton**

To browse the World-Wide Web (w3), I could not find a textual browser that is as powerful as a graphical one. Fortunately, there is a way to extend graphical browsers to provide a textual experience. An HTML page is structured as a tree. Apparently, UI designers and frontend developers are not paying too much attention to how the tree would mentally look like, they pay more attention to how the page visually look like instead.

Marmiton—meaning Chef Assistant in French and Egyptian—is a browser extension that provides me with commands to browse the tree of a web page. These commands are similar to the commands: [cd, ls, pwd, cat, rm]. Additionally, commands for filling and submitting forms. Above that, I can connect from the terminal to Marmiton through a websocket connected to stdin and stdout.

OCT 2018--PRESENT**Software Engineer of Bilya**

Building Java Editing tools to facilitate the process of coding from the commandline. It provides the "cls" command, which lists and searches the classpath for available classes. Currently, working on the "mbr" command which lists and searches the members of selected class or classes.

OCT 2018--PRESENT**Software Engineer of Bostuggy**

Building a commandline tool for creating websocket servers for shell. The command creates the server. Then, it redirects its stdin to the server's output socket while it redirects the server's input socket to stdout.

FEB 2018--PRESENT**Software Engineer of Nashaz**

Even Music Making and Sound Design got polluted and dominated by the graphical world leaving their mental, acoustic and tactile natures aside—no wonder how imitative music is presently.

Nashaz—meaning dissonance in Egyptian—is my fix to this intentional dilemma. It provides the commands to define music instruments, the various scales for a designed instruments, and either write or play a score with one of the scales and mix them gradually. This is being achieved using Csound, alsa and, of course, bash.

OCT 2017--PRESENT**Software Engineer of Terzi**

Interacting with a GUI is similar to navigating a map. Sight makes it possible for shortcuts to exist throughout this map (e.g., move the mouse to a menu toolbar, expand it and move the mouse again to click on one of it's items.). For an unsighted, this is a problem affecting the most important factor in the market which is *productivity*. As an individual coming from the sighted world to the unsighted one and that I can observe the huge difference between the two experiences of using the computer, I had no choice but to work on finding a solution—giving no care to time and money.

After trying out GUI screen readers, the conclusion was that this is such a poor fix since it cannot compete with the speed of vision. Since I am a computer scientist, I know the power of text when interacting with computers. So, I decided to travel back to the Golden Age of Computers ('60s–'90s) when text was dominating over graphics.

The journey lead me to use Debian/GNU Linux where graphics is just a complementary aspect. Since text here is dominating over graphics, it makes absolute sense that Debian is the only operating system I found on the web that provides speech output method from the very first step of usage which is booting and installing the OS itself.

Becoming a Terzi—meaning Tailor in Turkish and Egyptian—user is the scope of this ongoing project where I would be able to tailor my experience when interacting with my computer instead of being controlled and limited by GUIs. This is being achieved by mastering the console and bash (the most powerful program of all times in my opinion). All of the following projects follow the concept of Terzi.

Employment History

AUG 2015--MAR 2016**Senior Software Engineer at Poppin**

At Poppin, there was three different technology-stacks. Here s the work done within each stack:

1. NetSuite, Business Management Software, led the development of:

   - Re-engineering and putting down the architecture of the code-base.

   - Developing a new model for selecting warehouse locations for each sales order.

   - Modifying and changing the data models for companies, contacts and customers, and the relationships between them, by writing a variety of scripts to migrate the current data.

   - Writing a service responsible for exporting records and sublists as CSV.

   - Bug fixing.

2. Demandware, E-commerce Platform, contributed to:

   - Re-designing Poppin's web application.

   - Modified the categorization model of products and making better use of the slicing attributes.

   - Bug fixing.

3. Scruffy, an In-house Java-based Feeds Management System, contributed to:

    - Refactoring customers feeds.
    - Bug fixing.

MAR 2015--MAY 2015**Senior Software Engineer at PM Digital**

Contributed to various projects for HP, ColorLok and KPMG. Focused on the front-end by helping adding and creating new UI modules and components. Technologies used include Adobe AEM/CQ, NodeJS, Grunt, AngularJS, Handlebars, SASS and LESS.

FEB 2015--JUL 2015**Founder of Ballura**

Java SE, Apache Cassandra, Apache Solr and Java Jersey.

JAN 2013--DEC 2014**Software Engineer at The Daily Beast / Newsweek**

Developed a toolbar for old Newsweek Editions deployed to Adobe Content View on Kindles and Android devices: The toolbar gives the reader the ability to increase and decrease text size and save the last size using HTML5 storage, scroll to the top of the page and share on the top 3 social networks.

This project was challenging in the sense that it was developed to support old Android devices (2.3) which do not support various CSS properties, especially CSS3 properties and the fixed positioning do not work properly.

Contributed on the redesign of Newsweek, The Daily Beast and Women in the World (Desktop and mobile):

- Modifying and sometimes reimplementing the JSON content API which is used then by the Dust templating engine to render content.

- Created various UI components to be reused on different pages all over the sites. To achieve this, various front-end technologies and techniques were used. DustJS to create templates, Less for styling, Javascript and various in-house and third-party libraries to build dynamic features.

- Used Google Publisher Tags, Double-click for Publishers and Google AdSense to deliver Ads.

- Used Adobe SiteCatalyst, Dax and Google Analytics for tracking.

Developed a Java Service that compiles Less files on the server-side: This is done by checking for updated and newly created less files in JCR, using OSGI events, and then compile them using Mozilla Rhino. And finally save the CSS output in the same directory where each less file is placed. To optimize the performance of the service, used the multithreading features provided by Java.

Developed a bundle that generates the printed version of Newsweek editions: The front-end templates where created using XSL-FO. A Java servlet with a xsl selector and PDF extension outputs the pdf version of the requested page. The PDF generation is done using a Java service that uses Apache FOP.

Migrated the legacy advertising library to use Google Publisher Tags: Created a JQuery plugin that is responsible for injecting the ad inside the selected elements. Also, created a Javascript library that uses Google Publisher Tags for ad calls.

JAN 2011--NOV 2011**Junior Software Engineer at TekTrust**

1. Took a training on Business Process Management using Appian BPM Suite to:

    - Design and model processes using Appian Process Modeler.
    - Design applications using Appian Applications designer.
    - Design forms using Appian forms designer.
    - Customize smart services, expression functions, custom forms and custom channels using Appian java APIs, JSP, HTML,

Javascript, CSS and other web technologies.

2. As a member of three members team, built now kora social network connecting soccer players using Elgg open source social networking engine (MVC framework based on LAMP):

- Designed and implemented an Elgg plugin for linking the users now kora account with his facebook account using the facebook graph API, it allows the user to login using facebook and updates his timeline with his now kora feeds.

- Designed and implemented a plugin for organizing soccer matches between players in the network. The plugin allows a teams admin to create/edit/delete matches, invite team players to created matches and accept/reject non-team players join requests.

- Contributed in the Design and implementation of an Elgg web theme for all the pages the pages that appear when there is no user logged in using HTML4, CSS2 and jQuery UI.

- Designed and implemented two mobile Elgg views, one for touch devices using Sencha Touch 2 and the other for blackberry devices using JQuery Mobile. During this task, I had to customize a lot of javascript, jQuery, HTML5 and CSS3 code to build the UI as required by the client.

`AUG 2008--NOV 2008`**Intern Software Engineer at Atlantic Industries — The Cocacola Company**

Implemented web applications for the Business Unit Telecommunication cost management and reporting: The system was implemented using PHP and MSSQL.

Education

B.Sc., Computer Science and Engineering: 2005–2010 at German University in Cairo.