

# FADDY MICHEL

## SOFTWARE ARCHITECT & 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 stands 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), KDE-mandware (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)

### Employment History

OCT 2018--PRESENT Founder / Leader / Software Engineer at Pseudomode

Founded Workshop for making not only ACCESSIBLE but USABLE Technologies.

**Bostagy:** A WebSocket server for Shell using NodeJS. It exposes a NodeJS module and Shell command that run a WebSocket server at the specified address and port; connecting the client via WebSocket protocol to standard streams of the Bostagy process. It implements the WebSocket protocol on top of the http core module.

**Maitre:** A Web server for Shell using NodeJS. It exposes a Shell command that runs a Web server on the specified address and port. When a client connects via WebSocket protocol or sends an HTTP request, Maitre searches for either a wsrc file or a file whose name starts with the HTTP verb (get, post, put, etc.) and the rc suffix. If the file is found successfully, Maitre runs the commands found in this file in a child process and connects the client to its standard streams.

**Scenarist:** A Scenario-based UI framework. A Scenarist application consists of scenarios. Each scenario is run by characters. When the user selects a character in a scenario, the character plays its scene by saying its dialog (can be some HTML if run in a browser or plain text if run on a TTY, and so on) and does

it's action (switch to a different scenario or whatever function the application designer assigns.).

**Oscilla:** A Sound Synthesizer for Shell. It uses Scenarist to build the UI and Csound for it's logic. In each scenario of Oscilla, ASCII codes are considered as the scenario characters. For instance, when on the Note scenario, the 's' ASCII code triggers the character responsible for playing the C pitch, and 'g' triggers the character responsible for decrementing the octave, and so forth.

**Nota:** A Database platform for Shell. The user organise their data in notebooks. Each notebook has a note pattern. Notes belong to a note book will have the same structure as the note pattern. Each note consists of a collection of fields. Each field has a tag name and value.

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.

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 multi-threading features provided by Java.

**Developed a bundle that generates the printed version of Newsweek editions:** The front-end templates were 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 team's 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 Coca-Cola 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.