

# Adrian **Montero**

SOFTWARE ENGINEER

Abu Dhabi, UAE

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## Summary

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Adrian Montero is a software engineering veteran. He began programming in the heyday of the BBS era. From low level systems programming and reverse engineering all the way to the reactive web. Always willing to learn, he continually strives to improve and enhance his craft in and out of the workplace. His skills include several programming languages and domains including, but not limited to: Python, Java, C#, C/C++, Assembly, R and Stata. He has experience in web technologies using multiple web stacks including: J2EE, LAMP, and MERN. He has developed APIs using REST, GraphQL, SOAP and RPC. From the data analysis side of the spectrum he has been involved with projects implementing Hadoop, Mahout, Lucene, Solr and ElasticSearch as well as with data visualizations using d3js and ggplot2. He is deft both on designing and interfacing with relational databases and NoSQL. He has work experience on DB2, MSSQL, MySQL, Mongo, and SQLite. On top of his development mastery he is well versed with DevOps and automation including setting up, configuring and managing infrastructure using AWS. He has proven international experience working in Mexico, United States and the United Arab Emirates.

## Experience

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### DarkMatter LLC

*Abu Dhabi, United Arab Emirates*

LEAD CYBER DEVELOPER

*Aug. 2016 - Current*

- End-to-End InfoSec software design, development, testing and maintenance.
- Designed and developed a distributed control system written in Python and reactive Javascript.
- Developed tools with Python and C to build InfoSec related software.
- Created appealing UI interfaces to interact with tools using React.

### University of Southern California

*Los Angeles, California*

SENIOR SOFTWARE ENGINEER - SPECIAL PROJECTS MANAGER

*Oct. 2015 - Jul. 2016*

- Lead several survey data collection efforts including surveys on Facebook, Amazon Mechanical Turk, GFK and YouGov.
- Program and manage the Drupal websites for the Center of Economics and Social Research.
- Provide guidance and direction through the complete life-cycle of data collection efforts.
- Install, audit and optimize the infrastructure of both physical and AWS servers.
- Attend conferences such as APPAM, GSA and PAA to disseminate the Gateway to Global Aging Data.

### University of Southern California

*Los Angeles, California*

SENIOR SOFTWARE ENGINEER

*Mar. 2014 - Sep. 2015*

- Designed, implemented, and managed the Gateway to Global Aging Data, a data harmonization project on ageing survey across the world.
- Worked as a survey developer for the Understanding America Study online panel and developing Nubis survey software widgets.
- Created a C extension for PHP to read and write the Stata statistical file format from PHP.
- Developed the Understanding America Study data dissemination page using Drupal.

### RAND Corporation

*Santa Monica, California*

RESEARCH PROGRAMMER

*Sep. 2011 - Mar. 2014*

- Programmed surveys using an in-house PHP platform as well as extending the Call Center module and creating a mass emailing extension.
- Programmed a C# mass e-mailer that allowed to sign and encrypt thousand of messages with a Department of Defense Common Access Card.
- Worked as a technical lead for the data collection of the Yucatan Social Policy intervention and aided on the data cleaning.
- Implemented a machine learning application using Hadoop, Mahout and Solr to analyze the relationship between US SES Army positions and US Army Jobs.
- Implemented a clustering analysis to identify relationships between key members in a state to help train the Army Special Operations Command.
- Developed a web tool using ASP.NET to interact with a SAS BI web service to analyze motor injury prevention for the CDC.

## WebEnabled

PHP DEVELOPER

Denver, Colorado

Jun. 2011 - Sep. 2011

- Developed a proprietary content management system using open Mongo, Sphinx and PHP.
- Developed bash scripts for web application cloning and self configuration.
- Created an application on NodeJS which served a fast cache for providing Geo-localization services.

## Freelance

PHP DEVELOPER

Monterrey, Mexico

Mar. 2011 - May. 2011

- Developed an online PHP product catalog for a hardware vendor in Mexico city.

## Tu Mundo

DRUPAL DEVELOPER

Austin, Texas

Dec. 2010 - Mar. 2011

- Developed a website on Drupal with a custom theme.
- Created custom Drupal modules to interact with the public through Twitter and Facebook during a live video broadcast.

## Scorpio Auto-glass

WEB DESIGNER

Dallas, Texas

Jan. 2009 - Mar. 2009

- Designed a custom website with an online catalogue and price quoting for automobile windshield replacement.

## Grupo Empresarial EISEI

JAVA SENIOR DEVELOPER

Monterrey, Mexico

Feb. 2007 - Oct. 2007

- Worked in a multi-disciplinary team that was tasked to convert a bank application from ASP to Java/SAP WebDynPro.
- Implemented the web application that handled the credit rating for consumer and commercial banking.
- Researched the SAP WebDynPro platform and disseminate the proper way to use it to other team members.

## Globix Corporation

JAVA DEVELOPER

Monterrey, Mexico

Nov. 2006 - Jan. 2007

- Collaborated with an international team in the development of an internal asset portal for direct marketing and collateral marketing within SAP

## TuSite.com

C APPLICATION DEVELOPER

Monterrey, Mexico

Aug. 2006 - Oct. 2006

- Upgraded a pricing and inventory system that interacted through RPC with Ingram Micro.
- Developed a native winapi application that communicated between clients using a PHP XML-RPC server.

## PCEL

SYSTEM ADMINISTRATOR/PROGRAMMER

Monterrey, Mexico

Mar. 2004 - Oct. 2004

- Maintenance and system administration of the store's web servers and the servers being hosted at the E1 connection.
- Provided technical support to the company's systems.
- Created a reverse auction website for the hardware suppliers.
- Wrote a DNS query application in C.
- Implemented a multi-threaded B2B interface with Ingram Micro and Synnex to synchronize prices.

## Skills

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|-------------------------|---|
| <b>Programming</b>      | C/C++, Python, Java, C#, NodeJS, Bash                     |
| <b>Web</b>              | PHP, Drupal, Meteor, ReactJS, HTML5, CSS, XML, D3, JQuery |
| <b>Statistical</b>      | R, Stata  |
| <b>Monitoring Tools</b> | Nagios, Tripwire, Wireshark                               |
| <b>Database</b>         | MySQL, MongoDB, SQLite                                    |
| <b>Languages</b>        | English, Spanish, French                                  |

## Education

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### Universidad Tecmilenio

Monterrey, Mexico

M.B.A. IN FINANCE

2009-2011

- Dissertation titled "El efecto en los precios de las acciones de la BMW a consecuencia de un cambio de calificación durante la crisis hipotecaria"

## Universidad Tecmilenio

B.S. IN SOFTWARE ENGINEERING

- Linux Kernel programmer for the Robotics Club
- Six Sigma Yellow Belt Course

Monterrey, Mexico

2006-2009

## Awards

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- 2013 **Impact Award – Improving RAND’s Agility**, Provided emergency on-site support for the installation, administration and fielding of a survey for sexual abuse for the US Air force Basic Military Training at Lackland Air force Base

*RAND Corporation*