

# CARLOS F. RAMIREZ

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## SUMMARY

I'm an experienced, award winning software developer, who is savvy of the latest technologies, as well as grounded in industry standard frameworks such as .NET. My skills will surely serve to further your organization's ambitions.

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## SKILLS

- Proficiency in software development in Python, C, C++, C#, Haskell, Java, Octave, Assembly IA-32, HTML5, CSS3, JavaScript, jQuery, React, Node.js, Angular, Twitter Bootstrap, ASP.NET WebForms, ASP.NET MVC, Windows Communication Foundation, Windows Workflow Foundation, SQL Server 2008, SQL Server 2008 R2, SQL Server 2014.
- Experienced in version control systems such as Mercurial, Git, and Microsoft's Team Foundation Server.
- Familiarity with UNIX, GNU/Linux, and Amazon WC3 cloud services.

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## RELEVANT EXPERIENCE

**CloudLabs** (August 2015 - December 2015)

### Co-Founder

- Developed an app to upload clinical laboratory test results to the cloud.
- Used Ruby on Rails to provide remote storage of the test result, loopback (a Node.js framework) for the app backend, and React for the frontend.

**Abarca Health** (October 2012 - October 2015)

### Software Engineer I

- Responsible for maintaining and developing, along with a team of developers, RxPlatform (RxP), the core service of Abarca Health.
- RxPlatform is a web application that manages the business logic used to process pharmaceutical claims from nearly one million health insurance beneficiaries.
- **Coverage Determinations:** Our call center processes requests from beneficiaries to readjudicate plan coverage of certain drugs. This is a module to manage the call center workflow for clinical pharmacists and case specialists. Implemented using HTML5, CSS3, ASP.NET WebForms, C#, JavaScript, jQuery, Knockout, Windows Communication Foundation, Windows Workflow Foundation, and SQL Server 2008.
- **Step Therapy:** Abarca Health has to manage complex business logic regarding which step therapy drugs a formulary has available. Implemented a module to handle streamlining this logic using HTML5, CSS3, ASP.NET WebForms, C#, JavaScript, jQuery, Windows Communication Foundation, and SQL Server 2008 R2.
- **Security:** Was in charge of extending the functionality of our centralized security application. Created a forgotten password retrieval system, and a system to create new users in batches by uploading Excel spreadsheets. Implemented HTML5, CSS3, ASP.NET WebForms, C#, JavaScript, jQuery, Windows Communication Foundation, ADO.NET and SQL Server 2008 R2.
- **RxP2:** Was in charge of porting RxP from ASP.NET WebForms to ASP.NET MVC. This was a very large scale project that saw me making architectural decisions about the future of the platform. To do this, I settled on using ASP.NET MVC, HTML5, CSS3, Twitter Bootstrap, JavaScript, jQuery, jQuery DataTables, Windows Communication Foundation, and SQL Server 2014.

**Glugr** (August 2015 - October 2015)

### Lead Developer

- Worked on developing Glugr, a shopping discount aggregator.
- Used React to handle the front end, and loopback (a Node.js framework) for the back end.
- Also developed jQuery based scripts to scrape web pages and extract shopping deals from them.

**jHacks** (July 2015)

### Developer

- Won first place in the Azure Web Services category in the jHacks 2015 Hackathon at Engine4.
- Developed a check-in web app for barbershops, using Angular for the front end and Azure Web Services for the back end.

**TechSummit PR** (June 2013)

### Developer

- A civic coding hackathon. Our team was awarded with the "Most Disruptive" distinction.
- Developed AEE Incidents, a Python application that reported electric grid failures via Twitter and SMS.

**Stanford's Machine Learning Course** (August 2012 - October 2012)

### Student

- Enrolled in the online course in Machine Learning offered by Stanford University.
- The course covered the machine learning models of linear and logistic regression, artificial neural networks, and support vector machines (SVMs).
- Implemented and used an artificial neural network to create a handwritten digit character recognition system.
- Used a SVM to create an email spam filter.

## **University of Houston-Downtown** (Summer 2011)

### **Researcher and Developer**

- Developed artificial intelligence software in Java to extract meaningful data from medical texts.
- Used Natural Language Processing (NLP) techniques to extract this data.
- The software went on to tie for first place in an international computer science competition (I2B2, Informatics for Integrating Biology and the Bedside).
- Our team's average accuracy rate in extracting meaningful data was 91.2 percent, nearly identical to Microsoft's team (91.5 percent), and well above the mid-80s percentage that was the total average of all participants.

## **Apex PR - Reto 2.0** (2011)

### **Developer**

- Developed enterar.me, an online application that gathered recent news stories from endi.com, ordered them according to their popularity, and extracted related comments from Twitter and Facebook.
- It was the winning entry in Apex PR's Reto 2.0 online mash-up application competition.
- Was in charge of Facebook and Twitter integration, using online tools to extract keywords from news items and then use the Twitter and Facebook API's to search for relevant comments using these keywords.

## **Undergraduate research** (2008-2009)

### **Research assistant**

- Collaborated with Professor Marko Schütz on the development of a software metrics system for the NetBSD operating system.
- Succeeded in integrating software metric tools with the NetBSD build process.
- Wrote research paper on the subject.

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## EDUCATION

**University of Puerto Rico at Mayagüez** Mayagüez, PR, U.S.A. • B.S. in Computer Science, Department of Mathematical Sciences, 2011

GPA: 3.25

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## HONORS AND AWARDS

- Completed Stanford's Introduction to Databases, an online course.
- Completed MIT 6.002x Circuits and Electronics, an online course.
- Our team placed 8th (out of hundreds) in our region in the IEEEExtreme 2011 global programming competition.
- MCSD: Web Apps Certified.

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## EXTRACURRICULAR

- Co-founder of Free Culture @ UPRM, organized and collaborated on presentations, projects, and workshops.
- Co-founder of ACM-CS, was Treasurer, organized and started fundraisers, and collaborated on software projects.
- Studied abroad at Yonsei University, Seoul, South Korea (February 2010-June 2010)