

# MOHAMAD AHMADI

<http://moeahmadi.com> | [mohamadhasan.ahmadi@gmail.com](mailto:mohamadhasan.ahmadi@gmail.com) | +1 613 406 8281 | Ottawa, ON

## SKILLS

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Programming Languages: Java, Javascript, Ruby, C++/C, Python, SQL

Product Design, Prototyping, and Development:

- Web Application Development: Spring, Node.js, Ruby on Rails
- Frontend Development: HTML5, CSS, Javascript, JQuery, AngularJS, GWT, Twitter Bootstrap
- Test-driven Development (TDD).
- Object-oriented Design Patterns.
- Building and working with RESTful APIs.
- HTML Mobile App Development: PhoneGap/Cordova
- Databases: PostgreSQL, MySQL, MongoDB
- Wireframing: Balsamiq Mockups
- Templating: Dust.js, Handlebars, Liquid
- Preprocessors: Coffeescript, Sass, HAML, Markdown

Search and Relevance concepts and technologies:

- Full-text and Geospatial search expert with Elasticsearch and Lucene.

Geospatial data and Geographic Information Systems (GIS):

- Geographic data storage and querying with PostGIS (Geospatial module for PostgreSQL) and Lucene.
- Geographic data manipulation in Java using GIS toolkits such as GeoTools.
- Working with Geocoding and Mapping APIs as well as standard data formats such as KML and GeoJSON.

Development Environment:

- Virtualization and Provisioning: Vagrant, Shell script, Puppet
- Version Control: Git, Subversion
- IDEs/Editors: Eclipse, IntelliJ IDEA, Vim, Sublime Text
- Operating Systems: Linux, Mac OS, Windows

## WORK EXPERIENCE

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**Software Engineer** at TripAdvisor May 2015 - Present | Ottawa, ON

- As a member of TripAdvisor's Site Experience team, I am focused on designing and developing highly available and highly scalable search features that enable users in over 45 countries to search through hundreds of millions of businesses, properties, and reviews. I use technologies such as ElasticSearch, Java, HTML, CSS, Javascript, and Dust.js on a daily basis within TripAdvisor's fast-paced iterative release process. Speed wins!

**Software Engineer** at nTerop Apr 2012 - Mar 2015 | Ottawa, ON

- Delivering features in the entire software stack in a Scrum team using Java, Spring, Hibernate, Maven, PostgreSQL, PostGIS, GWT, HTML, CSS, Javascript, PhoneGap, and Balsamiq Mockups.
- Performing requirements analysis, prototyping, product design and implementation, testing, documentation, release, deployment, and maintenance of nTerop's application suite.
- Having ownership of several critical parts of the application suite including Maps and GeoSpatial features, Authentication and Access Control, and Search and Relevance.

**Software Engineer Intern** at Facebook Jan 2011 - Apr 2011 | Palo Alto, CA

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- Performed backend and frontend development using PHP, HTML, CSS, and Javascript.
- Worked on requirements analysis, design and implementation of an interactive Ad unit.
- Co-developed a feature for adding friends using QR codes as part of a Facebook Hackathon.

**Consulting Software Engineer** at Tejarat Consulting Engineers Feb 2009 - Jul 2009 | Tehran, Iran

- Performed requirements analysis for banking softwares.
- Assisted in development of tools written in C and Java used for automated migration of a legacy banking storage system to relational database.

**Research Assistant Intern** at Technical University of Ilmenau Jul 2008 - Sep 2008 | Ilmenau, Germany

- Used C++ and OMNeT++ network simulator to simulate and benchmark malicious behaviours and appropriate countermeasures in a distributed Network Coordinates system.

## EDUCATION

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**Masters in Computer Science** at the University of Waterloo Sep 2009 - Mar 2012 | Waterloo, ON

As a member of the Information Retrieval Lab, my research was focused on statistical and unsupervised approaches to Natural Language Processing and Information Extraction:

- Developed a learning agent in Python to automatically extract favorable and unfavorable aspects of a restaurant from customer reviews given a small set of dish names.
- Modeled a POMDP decision making agent for Insulin Therapy.
- Participated in Named Entity Recognition track of Text Retrieval Conference (TREC).

**Bachelors in Computer Engineering** at the University of Tehran Sep 2004 - Feb 2009 | Tehran, Iran

Developed a strong foundation in computer science and a broad understanding of software engineering, its tools and methodologies through a world-class curriculum and numerous projects:

- Implemented an e-commerce website with inventory and order management using Struts2, Hibernate, JSP, and Ajax.
- Developed a mini database in Java supporting basic SQL queries, locking, and Hash/B+tree indexing.
- Implemented a full compiler in Java for a java-like object-oriented programming language.
- Built a web portal similar to now retired iGoogle featuring interactive gadgets using GWT and Ajax.
- Implemented a GUI FTP Client and Server, covering common FTP commands using Java and Swing.
- Developed a 2D multiplayer strategy game in C++.
- Implemented the complete TCP Protocol over UDP in java.
- Developed a data Compression/Decompression software based on Huffman Algorithm in C++.

As a member of the Database Lab, collaborated in a number of projects on Data Mining, Information Retrieval, and Text Classification:

- Improved an Ant Colony optimization algorithm for the task of detecting trends in spatial Databases.
- Assisted in development of a standard Persian text corpus and used it to benchmark various text classification algorithms.
- Implemented and evaluated different Query Expansion methods on Lucene.
- Attended the Cross Language Evaluation Forum (CLEF) competitions.

## AWARDS AND ACHIEVEMENTS

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University of Waterloo Graduate Student Entrance Award 2009-2011

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Graduated as the 5th top student among over 100 Computer Engineering students. 2009

University of Tehran's Faculty of Engineering Award for the highest yearly GPA. 2008

Ranked 230th in nationwide university entrance exam among over 400,000 participants. 2004

## LANGUAGE SKILLS

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English (Native fluency), Persian (Native), Portuguese (Learning)