

# Pooria Azimi

## Curriculum vitae

<http://bit.ly/pooria-azimi-cv>

### RESEARCH INTERESTS

Database and IR Systems

Operating Systems

(File systems - IPC - Microkernels)

Parallel System Programming

(the "Actor Model")

Human-Computer Interaction

### EDUCATION

B.Sc. in **Computer Science** (2009 – Present)

**Amirkabir University of Technology** (Iran)

GPA (last 60 CS credits): **16.5/20**

Ranked 590 (among 400,000+) in 2009 National Matriculation Exam (**top %0.2**)

### COMMUNICATION SKILLS

ENGLISH Fluent

PERSIAN Native speaker

GERMAN Basic understanding

TOEFL iBT		GRE GENERAL (EXPECTED*)	
Reading	30	Verbal Reasoning	160+
Listening	29	Quantitative Reasoning	170
Speaking	22**	Analytical Writing	4.5+
Writing	28		
<b>Total</b>	<b>109</b>		

\* Only the paper-based GRE test is administrated in Iran (with the results being made available on **December 9<sup>th</sup>**), but based on a few prep tests, I expect to approximately score as stated above.

\*\* I'm taking another iBT test (with the results being made available on **November 12<sup>th</sup>**) to improve my score in the Speaking section.

📍 365, E2, Ekbatan, Tehran, Iran  
☎ +98 (935) 431 26 45  
✉ [pooriaazimi@gmail.com](mailto:pooriaazimi@gmail.com)

### TECHNICAL SKILLS

LANGUAGES Java – Ruby – Erlang – C – PHP – Scala – Objective-C – CoffeeScript  
DATABASES PostgreSQL – MongoDB – Neo4j – Redis – Microsoft SQL Server  
WEB Node.js – Ruby on Rails – PHP – Sinatra – Backbone.js – Ember.js  
MISC. git – hg – vi – awk – sed – nginx – WebKit – ANTLR –  $\LaTeX$

### TEACHING EXPERIENCES

Teacher Assistant..... Winter 2011  
Database Design

Teacher Assistant..... Winter 2012  
Database Design

Teacher Assistant..... Winter 2012  
Artificial Intelligence

Teacher Assistant..... Winter 2013  
Database Design

Presenter ..... Spring 2012  
4th National Linux Festival  
Advanced Unix Command-line

Presenter ..... Spring 2012  
AUT-CEIT Computing Festival  
Introduction to Node.js

Presenter ..... Spring 2013  
AUT Database Workshop  
PostgreSQL vs. MySQL

Presenter ..... Spring 2013

AUT Database Workshop

## Introduction to MongoDB

Presenter ..... Spring 2013

AUT Database Workshop

## Basics of Neo4j and Redis

### PROJECTS

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July 2011 – April 2012

Iran Telecommunications Research Center

## Kavandeh Search Engine

Improving link-based web page ranking algorithms in a Persian-only search engine, using various statistical and heuristic methods.

Technologies: [Apache Nutch](#) – [Apache Solr](#) – [WebKit](#) – [Java](#) – [C++](#)

March 2012 – June 2012

## Visual WebPage Segmentation

Detecting web page structure using statistical analysis of the visual representation of the rendered page content, and using that structure for improving ranking algorithms in a search engine.

(development halted after 4 months due to time constraints)

Technologies: [Node.js](#) – [PhantomJS](#) – [MongoDB](#)

January 2011 – June 2011

## Baygan Database

An extendable and clearly-modulated framework for introducing students to the intricacies of relational database design. Inspired by [pintos](#).

(development halted after 6 months due to time constraints)

Technologies: [Java](#) – [ANTLR](#)

June and July 2010

## Embedded Search Engine

A complete, single-purpose search engine (written from scratch), designed to use minimal RAM (60MB) for indexing and searching the English Wikipedia, as the final project for the "Information Retrieval" course.

Technologies: [Java](#)

June 2012

## MiniJava Parser

A parser, complete with type checking, simple static analysis (of variable and function names in their scope), and an informative web-based UI, for the contrived [MiniJava](#) language, as the final project for the "Compiler Design" course.

Technologies: [CoffeeScript](#) – [json](#) – [d3.js](#)

January 2012

## Secure File System

A "secure" web-based storage solution (i.e., all the encryption happens in the browser), with multiple user support, as the final project for the "Information Security" course.

Technologies: [PHP](#) – [MongoDB](#)

April 2012

## 13<sup>th</sup> International Data Mining Cup

Our team created a bidding agent in Java for the "online" task (ranked 2nd in the Cup), and used a combination of statistical models, neural networks and SVMs for predicting the results of the "offline" task (ranked 13th).

Technologies: [MATLAB](#) – [Java](#)

May 2013

## A (simple) Twitter clone

A simple, but fully-featured Twitter clone (with users, tweets, timeline view, following, and an admin interface), as a learning exercise for Ruby on Rails web framework.

Technologies: [Ruby on Rails](#) – [PostgreSQL](#) – [CoffeeScript](#) – [Sass](#)

February 2013

## Ad Server

A simple ad server (for tracking ad impressions), as a learning experience for Sinatra web framework.

Technologies: [Ruby](#) – [Sinatra](#) – [SQLite](#)

July 2012

## University Registration System

A complete and realistic university registration system (server- and client-side), taking into account virtually all the intricacies of registration process, as the final project for "Database Design" lab.

Technologies: [Microsoft SQL Server](#) – [C#](#)

## OS X and iOS Apps

2011 – 2013

Multiple (mostly small) OS X and iOS applications, most notably [BetterDictionary](#) and [Farhang](#).

Technologies: [Objective-C](#) – [Cocoa](#) – [Core Data](#)

## Open Source Contributions

2010 – 2013

Contributing to multiple Open Source projects (code, documentation, and IRC support), including [Ag \(the silver searcher\)](#), [hg-prompt](#), [Kiwi](#), [Homebrew](#), and [fish shell](#).

## AWARDS

2<sup>ND</sup> PLACE    [13<sup>th</sup> International Data Mining Cup, Berlin, Germany, 2012](#)

## ONLINE EDUCATION

In addition to my normal classes, I have watched the videos, and finished the assignments of, a dozen freely available online courses, including the following CS-related courses:

- MIT's legendary [Structure and Interpretation of Computer Programs \(1986 – by Harold Abelson and Gerald Jay Sussman\)](#)
- UC Berkley's [Operating Systems and Systems Programming \(2008\)](#)
- Harvard's [Introduction to Computer Science \(2010\)](#) and [Building Dynamic Websites \(2010\)](#)
- Stanford's [Programming Methodology \(2007\)](#), [Programming Abstractions \(2008\)](#), [Programming Paradigms \(2008\)](#), and [iPhone Application Programming \(2013\)](#)

I'm also taking the following Coursera courses this semester:

- EPFL's [Functional Programming Principles in Scala \(2013 – by Martin Odersky\)](#)
- EPFL/Typesafe Inc.'s [Principles of Reactive Programming \(2013 – by Martin Odersky\)](#)