

# Pooria Azimi

## Curriculum Vitæ

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



### RESEARCH INTERESTS

Database and Information Retrieval Systems

Operating Systems

(File systems – Microkernels)

Concurrent Programming

(the “Actor Model”)

Human-Computer Interaction

### EDUCATION

Amirkabir University of Technology (Tehran, Iran)

B.Sc. in Computer Science, 2014 (expected)

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

### AWARDS AND HONORS

- **2<sup>nd</sup> place** at **13<sup>th</sup> International Data Mining Cup** (Berlin)  
*Our team created a bidding agent in Java for the “online” task, and used a combination of statistical models, neural networks and SVMs (with **MATLAB** and **Weka**) for predicting the results of the “offline” task.*
- Ranked 590 (among ~400,000 participants) in 2008 National Matriculation Exam (**top %0.2**)

### COMMUNICATION SKILLS

ENGLISH    Fluent

PERSIAN    Native speaker

GERMAN    Basic understanding

📍 365, E2, Ekbatan, Tehran, Iran

☎ + 98 (935) 431 26 45

✉ [pooriaazimi@gmail.com](mailto:pooriaazimi@gmail.com)



### TEACHING EXPERIENCES

Teacher Assistant

Database Design (Winter '11)

Database Design (Winter '12)

Artificial Intelligence (Winter '12)

Database Design (Winter '13)

Data Mining (Spring '14)

Presenter

4th National Linux Festival (Spring '12)

**Advanced Unix Command-line**

AUT-CEIT Computing Festival (Spring '12)

**Introduction to Node.js**

AUT Database Workshop (Spring '13)

**PostgreSQL vs. MySQL**

AUT Database Workshop (Spring '13)

**Introduction to MongoDB**

AUT Database Workshop (Spring '13)

**Basics of Neo4j and Redis**

### TECHNICAL SKILLS

**Programming Languages**

Experienced: **Java** – **Ruby** – **Objective-C** – **CoffeeScript**

Familiar: **Scala** – **C** – **Erlang** & **Elixir** – **Scheme** – **PHP**

**Databases**

Used extensively: **MongoDB** – **PostgreSQL** – **Redis**

Used occasionally: **Neo4j** – **MySQL** – **MS SQL Server**

**Server-side Web development**

Experienced: **Node.js** – **Ruby on Rails** – **Sinatra** – **PHP**

**Client-side Web development**

Limited experience: **Backbone.js** – **Ember.js**

**Miscellaneous**

Source Control Management (**git** & **hg**)

UNIXish tools (**vi**, **awk**, **sed**, etc.)

**nginx** – **WebKit** – **ANTLR** – **BDD** – **L<sup>A</sup>T<sub>E</sub>X**

TOEFL iBT		GRE GENERAL (EXPECTED*)	
Reading	30	Verbal Reasoning	160+
Listening	29	Quantitative Reasoning	170
Speaking	22**	Analytical Writing	4+
Writing	28		
Total	109		

\* Only the paper-based GRE test is administered in Iran (results: **Dec 9<sup>th</sup>**). This table is my expected scores based on a few (official and ETS-provided) practice tests.

\*\* I'm taking another iBT test (results: **Nov 12<sup>th</sup>**) to improve my score in the Speaking section.

## NOTABLE ACADEMIC 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.

Our team of two heavily improved upon Nutch's scoring, parsing, crawling, and spam detection submodules, and used WebKit's rendering engine for detecting semantically significant parts of a (rendered) Web page and assigning more weight to links in such areas (this feature proved to be computationally expensive and was eventually dropped).

(*Apache Nutch & Solr – WebKit – Java – C++*)

March 2012 – June 2012

### Visual WebPage Segmentation (VPS)

Detecting Web page structure with 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*)

(*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*)

(*Java – ANTLR*)

June and July 2010

### Embedded Search Engine

A complete, single-purpose search engine (all parts written from scratch), designed to use minimal online memory (60MB), for indexing and searching the contents of the English Wikipedia.

(*Java*)

## REFERENCES

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**Shahram Khadivi** (Assistant Professor, Amirkabir University of Technology, Iran)  
<http://ceit.aut.ac.ir/~khadivi/> – Email

For much of the past 3 years, and also the coming year, I have been working closely with Dr. Khadivi on multiple projects (Kavandeh, VPS, Baygan), Berlin Data Mining Cup, and now my thesis project. I have also been Teacher Assistant to a couple of Dr. Khadivi's courses ("Database Design": three years, "Data Mining": one semester).

More references are available upon request – but I've included only Dr. Khadivi's address above because I think he would be in the best position to evaluate my academic and technical expertise.

## OTHER PROJECTS

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2010 – 2013

### Open Source Contributions

Contributing to multiple Open Source projects (code, documentation, bug report, and IRC support), including PhantomJS, Ag (the silver searcher), hg-prompt, Kiwi, shadowsocks, fish shell, and Homebrew.

(*JavaScript – awk – Python – Objective-C – Ruby*)

### BetterDictionary

(*Objective-C – Cocoa*)

### MiniJava Parser

(*CoffeeScript – json – d3.js*)

### A Twitter Clone!

(*Ruby on Rails – PostgreSQL – CoffeeScript – Sass*)

### Farhang (partial contribution)

(*Objective-C – Cocoa Touch – Core Data*)

### Secure File System

(*PHP – MongoDB*)

### Ad Server

(*Ruby – Sinatra – SQLite*)

## ONLINE EDUCATION

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

- MIT's [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](#) (2011 & 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](#), et al.)