Pooria Azimi

Curriculum Vitæ

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

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Research Interests

Database and IR Systems

Operating Systems
(File systems – Microkernels)

Concurrent Programming
(the "Actor Model")

Human-Computer Interaction

Education

B.Sc. in **Computer Science**, 2014 (expected)
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		
Total	**109**		

* *Only the paper-based GRE test is administrated in Iran (with the results being made available on **December 9th**), 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 12th**) to improve my score in the Speaking section.*

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 – BDD – 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

Teacher Assistant (appointed) ..... Spring 2014
Data Mining

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

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* – *jison* – *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
13th International Data Mining Cup

The AUT 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*

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#*

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*

2011 – 2013

OS X and iOS Apps

Multiple (mostly small) OS X and iOS apps, most recently BetterDictionary and (partially) Farhang.

Technologies: *Objective-C* – *Cocoa* – *Core Data*

2010 – 2013

Open Source Contributions

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

Awards

2ND PLACE 13th International Data Mining Cup, Berlin, Germany, 2012

References

Dr. Shahram Khadivi (Assistant Professor, Amirkabir University of Techlonogy, Iran)
http://ceit.aut.ac.ir/~khadivi/ – Email

Salim Malakouti (Ph.D. Student, Pittsburgh University, PA, USA)
Website – Email

Ali Ghanbari M.Sc. Student, Amirkabir University of Techlonogy, Iran) – Email

Ali Nadalizadeh (Amirkabir University Alumnus – CTO at Turned on Digital, UK)
Website – Email

Online Education

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 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, et al.)*