

# BABAK ALIPOUR

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## RESEARCH INTERESTS

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- Cloud Computing
- Distributed Computing
- Data Mining
- Web 2.0 Programming and Analytics
- E-Commerce
- Software Design and Analysis

## EDUCATION

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- **Amirkabir University of Technology (Tehran Polytechnic)**  
**B.Sc. in Information Technology Engineering** 2010 – 2014 (Expected)  
**GPA: 17.71 /20 (Last 2 years: 18.91 /20)**  
*Selected Coursework: (GPA: 19.27/20)*  
*Principles of Database Design (19.25/20), Internet Engineering (20/20), Software Engineering I (19.5/20), Computer Networks I (17.25/20), Research Method & Report Writings (19/20), Data Structures & Algorithms (20/20), Advanced Programming (20/20), Engineering Statistics (18/20), Differential Equations (19.5/20), Logic Circuits (19.6/20), Computer Architecture (19.5/20), Engineering Economics (20/20), Advanced Topics in Software(Data Mining) (18.5/20), Technical English (20/20)*
- **Emam Reza High School No.4 , Mashhad, Iran**  
**Mathematics & Physics Diploma** 2006 - 2010  
**GPA: 19.45/20**

## HONORS AND AWARDS

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- Eligible for applying to continue my education in the **Masters' Program at the Department of Computer Engineering and Information Technology (CEIT)** without taking the "National Entrance Exam for Graduate Schools", as a reward of having total GPA above 16. – **2013**
- **Ranked top 0.25%** in the National Entrance Exam among all Iranian Students in Math. & Physics. – **2010**
- **Ranked top 0.1%** in the National Entrance Exam among all Iranian Students in Foreign Languages. – **2010**

## RESEARCH EXPERIENCE

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- **Cyber Space Research Institute (CSRI), Tehran, Iran**  
**Cloud-Based E-Learning Solution** Summer 2013  
Research on different methods and considerations for designing and implementing an e-learning solution based on a cloud platform, done as my summer internship at CSRI.

## TEACHING EXPERIENCE

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- **Teaching Assistant, Amirkabir University of Technology**
  - **Advanced Computer Programming**, Dr. Nourhosseini Spring 2013  
Responsibilities included preparing and grading the homework, holding TA sessions for extra work or Q/A and designing and grading projects.
- **Teaching Assistant, Amirkabir University of Technology**
  - **Computer Architecture**, Dr. Zarandi Spring 2013  
Responsibilities included preparing the homework and projects and grading the projects.
- **Teaching Assistant, Amirkabir University of Technology**
  - **Advanced Computer Programming**, Dr. Nourhosseini Spring 2012  
Responsibilities included preparing and grading the homework and projects.
- **Teaching Assistant, Amirkabir University of Technology**
  - **Technical English** , Dr. Nourhosseini Fall 2013

Responsibilities includes preparing and grading homework and helping students with reading technical English content.

○ **Teaching Assistant, Amirkabir University of Technology**

- **Data Structures**, Dr. Dehghan

Fall 2013

Responsibilities includes preparing the homework and helping students with projects.

#### EXTRACURRICULAR ACTIVITIES

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- Member of Executive committee of the *1<sup>st</sup> National Programming Contest for High School Students*
- Member of Executive committee of the *4<sup>th</sup> Amirkabir Linux Festival, 2012*
- Member of Executive committee of the *5<sup>th</sup> Amirkabir Linux Festival, 2013*
- Member of Executive committee of the First National Workshop on Cloud Computing, 2012
- Member of Executive committee of Local ACM contest, 2012
- Working as a free-lance JAVA developer
- Took part and got Certificate of Achievement in “JAVA Challenge” at Sharif University of Technology
- Working as a free-lance Web developer ( HTML, CSS, PHP, JavaScript)
- **Free Online Courses**
  - Computer Networks, Washington University
  - Machine Learning, Stanford University

#### PROFESSIONAL AND WORK EXPERIENCE

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- **Intelligent Data Miners Co. & Cyber Space Research Institute** Sep–Oct 2012  
CSRI is the leading company in Iran in the field of IT. As a computer engineer, I was assigned by IDM to help a group which helped upgrading the network system of CSRI. My job included daily interactions with employees and colleagues. We managed to gather data from 700 employees in one month.
- **Department of Computer Engineering and Information Technology, Amirkabir University of Technology** Dec 2011 – Present  
Network administration and maintenance of the department’s computer site which includes managing servers, deployment of windows installations on over 70 computers, monitoring the network and troubleshooting problems.

#### ACADEMIC COURSE PROJECTS

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- **Final year dissertation:**
  - Improving MOODLE (Modular Object-Oriented Dynamic Learning Environment) using cloud-based services with a focus on course management
    - This is a work in progress. The objective is to exploit MOODLE’s modular design to distribute it among cloud services. Furthermore, a couple of prototype services that can greatly help with course management are being developed.
- **Advanced Topics in Software Engineering ( Data Mining )**
  - Compilation of a research paper on Letter Recognition comparing many different classification methods including KStar, KNN, Decision Tree, etc with and without preprocessing and also, use of bagging and boosting meta-classifiers to achieve a high classification accuracy
    - Using Weka Explorer and sample dataset provided freely by UCI
- **Internet Engineering**
  - Design and implementation of a graphical notebook web application
    - Using PHP, HTML5, CSS, JavaScript, jQuery, jQuery UI and MySQL
  - Implementation of XML parsers
    - Using HTML, CSS and JavaScript
- **Database Design lab**
  - Technical presentation and a live demo on Classification and Clustering
    - Using Weka and MATLAB
- **Principles of Database Design**
  - Design and implementation of a Database for a Language center
    - Using MySQL

- Design and implementation of a customer relationship management software for a Café that includes logging purchases, sales, customer information and a social feature which allows customers to add friends, view their interests and latest purchases.
  - Using Java, Apache CouchDB and ektorp
- Compilation of a research paper on Apache CouchDB
- **E-Commerce**
  - Developed a business plan for a freelancing website, entitled “Time is Gold!”
- **Research Method and Report Writing**
  - Technical presentation and report on Humanoids
- **Computer Networks I**
  - Implementation of a multi-threaded web server
    - Using Java
  - Implementation of an HTTP and HTTPS proxy server
    - Using Java
- **Computer Graphics**
  - Design and implementation of a CAD software allowing for drawing of different 2D and 3D objects and supporting different clipping algorithms
    - Using Java and JOGL
- **Design and Analysis of Algorithms**
  - Implementation of Dijkstra algorithm to find the shortest path between two points
    - Using Java
- **Logic Circuits**
  - Design and implementation of XO game on a logic circuit
    - Using ModelSim and Proteus
- **Data Structures and Algorithms**
  - Implementation of MX QuadTree with a graphical user interface
    - Using Java
- **Advanced Computer Programming**
  - Implementation of a web browser
    - Using Java
  - Implementation of a graphical game name jRobokill with semi-intelligent agents
    - Using Java

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## COMPUTER SKILLS

- **Programming:**
  - **Experienced in** Java, XHTML, CSS, PHP, SQL
  - **Familiar with** C/C++, HTML5, XML, XPath, JavaScript, jQuery, VHDL, Verilog
- **Database Management Systems:** MySQL, MongoDB, Apache CouchDB, PostgreSQL
- **Softwares:** NetBeans IDE, Visual Studio , Wireshark, Nmap, ModelSim, MATLAB
- **Content Management Systems:** Joomla, Moodle

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## LANGUAGE SKILLS

- **Farsi (Persian):** Native
- **English:** Fluent
  - **TOEFL-iBT(2013):** 117/120  
*Reading 29/30, Listening 30/30, Speaking 28/30, Writing 30/30*

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## REFERENCES

Available Upon Request.