



# Behrooz Vedadian

## Résumé

### Education

- 2013–Present **Ph.D. Candidate**, *Amirkabir University of Technology*, Artificial Intelligence, *GPA – 19/20*.  
Research field: “Statistical Machine Translation” under supervision of Dr. Mohammad Rahmati and Dr. Shahram Khadivi
- 2005–2008 **M.Sc.**, *Amirkabir University of Technology*, Communication Systems Engineering, *GPA – 15.01/20*.  
Thesis title: “Signal Detection in Nonstationary Environments using Wavelets” under supervision of Dr. Hamidreza Amindavar
- 2000–2005 **B.Sc.**, *Sharif University of Technology*, Electrical Engineering, *GPA – 15.10/20*.  
Thesis title: “Speaker Identification using HMMs” under supervision of Dr. Mohammad Mahdi Nayebi
- 1996–2000 **Diploma**, *National Organization of Development of Exceptional Talents(NODET)*, Mathematics and Physics, *GPA – 19.5/20*.

### Experience

#### Vocational

- 2015–Present **Researcher and Senior Software Engineer**, TARGOMAN INTELLIGENT PROCESSING CO., Tehran.
- A Computer Assistant for translation was designed and implemented which is named **Tarjomyar**, built using javascript language while preserving the modularity and object oriented design.
  - An experimental Neural Machine Translator for English-Persian was trained and successfully integrated into **Tarjomyar**.
  - Using basics from libevent a very fast http API server was developed having Marian-NMT at its core (**#**).

South Kerman Street, Rezayee Alley, No.7, Unit 6 – Tehran, Iran

☎ +98 915 584 0296 • ☎ +98 21 2250 2137

✉ [vedadian@aut.ac.ir](mailto:vedadian@aut.ac.ir) • 🌐 [vedadian.com](http://vedadian.com)

2013–2015 **Researcher and Senior Software Engineer**, HLT LAB, Amirkabir University of Technology.

- We used Moses open source statistical translation system to develop an online translation service for Persian-English languages.
- A text processing library was developed to preprocess, tokenize and enhance input sentences given to translation service.
- We also developed a *robust* open source phrase based statistical machine translation decoder title **Targoman** available on **GitHub**. This was done to remedy the instability and unintegrated software design of Moses toolkit.

2009–2014 **R&D Engineer**, HODA SYSTEM CO. LTD., Tehran.

- We developed a Persian printed text recognition software which included layout analysis.
- We also tailored the OCR library for extraction of Egyptian ID card information in course of cooperation with Egypt City Bank Co.
- We also incorporated natural language processing for improving the OCR results quality
- I developed a couple Web Applications for a demonstration version of digital document archiving that used OCR and image processing techniques to ease information extraction

### Teaching

2001 **Teacher's Assistant**, COMPUTER PROGRAMMING, Sharif University of Technology.

2014 **Teacher's Assistant**, STATISTICAL NATURAL LANGUAGE PROCESSING, Amirkabir University of Technology.  
Instructed by Dr. Shahram Khadivi

### Miscellaneous

1998–2013 **Freelance**.

I have participated in various software development tasks using wide range of tools and programming languages ranging from FoxPro! to 8051 assembly and prepared a detailed Pascal programming tutorial for **Roshd magazine**.

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### Awards

- 1997 Ranked 5<sup>th</sup> in Iranian national computer programming contest, held in Tehran.
- 1998 Ranked 3<sup>rd</sup> in Iranian national computer programming contest, held in Isfahan.
- 1999 Qualified to enter the second level of national students Physics Olympiad
- 1999 Qualified to enter the second level of national students Mathematics Olympiad
- 2013 Ranked 9<sup>th</sup> in national Ph.D. entrance examination

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### Computer skills

|              |  |
|--------------|--|
| Basic        | Perl, JAVA, Inkscape   |
| Intermediate | PYTHON, Linux, BASH Scripting, Adobe Photoshop                               |
| Advanced     | C++, C#, L <sup>A</sup> T <sub>E</sub> X, MatLab, PHP, HTML, JavaScript, CSS |

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### Languages

|         |                      |
|---------|----------------------|
| Persian | <b>Mother tongue</b> |
| English | <b>Fluent</b>        |

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## Interests

- Research on Machine Learning
- Drawing and Painting
- Storytelling and Cinema
- Mathematics
- Graphic Design

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