

# RÉSUMÉ

December 22, 2012

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## BEHDAD ESFAHBOD

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### EDUCATION

- 2009/05–2012/04 Evening MBA, Rotman School of Management, University of Toronto, Toronto, Canada.**  
Entrance award. Dean's List.
- 2003/09–2006/05 M.Sc. in Computer Science, University of Toronto, Toronto, Canada.**
- 2000/09–2003/08 B.Sc. in Computer Engineering, Sharif University of Technology, Tehran, Iran.**

### INTERNATIONAL AWARDS

- 2005** Google Summer of Code grant, for developing *preload*, an adaptive readahead daemon, with Fedora Project as mentoring organization.
- 2000** Gold Medal, 12th International Olympiad in Informatics (IOI'2000), Beijing, China.
- 1999** Silver Medal, 11th International Olympiad in Informatics (IOI'99), Antalya, Turkey.

### TECHNICAL SKILLS

#### **Internationalization and Localization**

World expert in the OpenType text rendering, Unicode standard, internationalization in software systems, bidirectional writing systems, Arabic and Indic writing systems, and Persian language.

#### **Programming Languages**

Wizard in C. Proficient in C++, Python, and bash. Familiar with Java and PHP.

#### **Software Management**

Expert in software development and maintenance using GNU autotools (autoconf, automake, libtool), git, SVN, CVS, and Bugzilla for Open Source libraries and applications.

#### **Data Structures, Algorithms, and Graph Theory**

Excellent theoretical and practical background, as demonstrated in IOI competitions.

#### **Operating Systems and Environments**

Expert in GNU/Linux and UNIX development and tools. A decade of GNOME, GNU, and Fedora involvement.

### WORK EXPERIENCE

- 2010/07–now Google Canada. Software Engineer.**  
Responsibilities included maintaining and improving of international text rendering across Google's line of products, including ChromeOS, Chrome Linux, and Android. In this position I designed, developed, tested, and integrated two libraries, HarfBuzz and GLyphy, into Google's products to enable best-of-industry internationalized text rendering support.
- 2006/06–2010/06 Red Hat Canada. Software Engineer.**  
Responsibilities included improving, implementing new features, and maintaining packages in the Linux Desktop in Red Hat Enterprise Linux product and the Fedora project, including addressing customer problems, working with the Open Source community including various parts of the GNOME project, and handling internationalization (i18n) issues and coordinating with the i18n team.

**2000/09–2003/08 The FarsiWeb Project. Researcher and senior developer.**

The FarsiWeb Project is a research project working on internationalization and Persian localization of computer systems. As part of this project, I contributed patches to various software projects, including Mozilla, Qt, KDE, Glib, Pango, Gtk+, fontconfig, glibc, and the Unicode standard, and co-edited two Iranian national standards on adopting Unicode for Persian computing.

**Summer–2003 Sharif FarsiWeb, Inc. Co-founder.**

Sharif FarsiWeb, Inc. is a company specialized in distributing and supporting Sharif Linux, consulting technical and legal issues of Free/Open Source Software, and standardizing Persian language issues in information technology in Iran.

## VOLUNTEER WORK EXPERIENCE

**2007–now GNOME Foundation. Software maintainer and developer. Volunteer.**

The GNOME Foundation is a non-profit organization that works to further the goal of the GNOME project: to create a computing platform for use by the general public that is completely free software. The GNOME Foundation Board of Directors administers the GNOME Foundation. I served as a director for the 2007..2009 calendar years. I also served as the president of the Foundation from January 2008 to June 2009.

**2002–now The Unicode Consortium.**

Contributing volunteer member of technical committee and bidirectional scripts subcommittee.

## SOFTWARE DEVELOPMENT PROJECTS

Mostly performed as volunteer unpaid work or as part of my job at the time.

**2011–now GLyphy Text Rasterizer. Designer and developer.**

GLyphy is a revolutionary text rendering engine using OpenGL ES shader technology to render high-quality text on the screen in realtime at every frame.

**2006–now HarfBuzz Shaping Engine. Maintainer and lead developer.**

HarfBuzz is the only Free and Open Source OpenType text shaping engine used by Google Chrome, Android, Firefox, GNOME, KDE, and others.

**2006–now Cairo Graphics Library. Developer and Co-maintainer.**

Cairo is a 2D graphics library with support for multiple output devices. Responsibilities include bug fixing, making releases, general maintenance, and working with a community of contributors.

**2005–now Pango, Vte, Gucharmap, and Dasher. Developer and Co-maintainer.**

All are part of the GNOME project. Pango is a powerful modular Unicode text rendering engine. Vte is a terminal emulation widget. Gucharmap is a Unicode character map application. Dasher is an innovative predictive text input-method.

**2005–2006 preload. Developer and maintainer.**

preload is an adaptive readahead daemon for desktop systems. It predicts applications that users may run and prefetches them from the disk for faster startup times. It was awarded a Google grant, and developed for the Fedora Project. Base work for my Masters thesis.

**2001–now GNU FriBidi. Lead developer and maintainer.**

FriBidi is an Open Source implementation of The Unicode Bidirectional Algorithm (UAX#9), used in AbiWord word processor and Pango text rendering engine, as a requirement to support Arabic and Hebrew scripts. FriBidi is part of the GNU project, by appointment of Richard Stallman.

**2000–now RiRa Persian Digital Library. Lead developer and maintainer.**

RiRa is a huge database of Persian poetry available to public. Designed and implemented using PostgreSQL and PHP.

**1998–now FarsiT<sub>E</sub>X Project. Developer and technical manager.**

FarsiT<sub>E</sub>X is a bilingual (Persian, English) typesetting system based on L<sup>A</sup>T<sub>E</sub>X. Subject of my BSc. final project.