

# Elnar Hajiye

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## Work Experience

2008 – Present, Realeyes Data Services, London, UK

Shareholder, **Technical Director**

- Lead several software projects for eye-tracking data analysis.
- Manage contacts with company's national and international clients and partners.

2008 – 2009, Siemens Magnet Technology, Eynsham, UK

Contractor, **Software Engineer**

- Responsible for migration of legacy Visual Basic software to Java.
- Support physicists with LabView data logging.

2006 – 2008, Semmler Limited, Oxford, UK

Co-founder, **Director of Marketing**

- Was responsible for marketing Semmler and its products.
- Took active part in the main product development.
- Assisted with many other issues that typically arise in a start-up company.

2008, Keble College Development Office, University of Oxford, UK

**Telethon Fundraiser**

- Helped reestablish connection between college and its past alumni.
- Raised funds for college needs in a telephone campaign.

2004 – 2005, St. Anne's College MCR committee, University of Oxford, UK

Volunteer, **MCR computing officer**

- Represented interests of the graduate students in the college.
- Assisted students to deal with major IT problems.

Previous positions held between 1997-2004 are listed in Appendix.

Have scientific publications in major international IT conferences.

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## Personal Skills

- Co-founded and directed several technology start-ups;
  - Strong team player, but able to work alone when necessary;
  - Have experience in leading people and projects;
  - Managed customer and partner relationships;
  - Analytical and strategic thinking;
  - Passionate learner of new technologies and methods.
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## Language Skills

**Russian, English and German**  
Fluent written and spoken.

**Azeri and Turkish**  
Good written and spoken.

**Spanish**  
Basic knowledge.

Technical Skills	<p>Proficient knowledge of the following computer languages, tools and technologies:</p> <ul style="list-style-type: none"> <li>• Software Management Systems: TRAC, SVN, BugZilla.</li> <li>• Programming languages: C/C++/C#, Java (Hibernate, Spring, JasperReports), AspectJ, Perl, PHP, XML, SQL and extensions, Prolog, Datalog, CAML: Microsoft Visual Studio (Win API, MFC, .NET), Borland Delphi, Kylix, C++ Builder (OWL, VCL, CLX, ActiveX, BDE), Eclipse;</li> <li>• Database systems: PostgreSQL, MySQL, Sybase, Paradox, MS SQL Server, IBM DB2, Oracle.</li> <li>• Web Designing: Adobe Photoshop, Dreamweaver, Flash, JavaScript, HTML, CSS.</li> <li>• Content Management Systems: Joomla, Drupal.</li> <li>• Highly skilled in operating systems, including Mac OS X, Microsoft Windows XP/Vista/Server. Good knowledge of UNIX (FreeBSD 4.x, IRIX, Solaris) and Linux(Ubuntu, Debian, SuSE, Red Hat) operating systems.</li> <li>• Knowledge of many applications: Microsoft Office (Word, Excel, Access, PowerPoint, Visio, Project, VBA) and other.</li> </ul>
Education	<p>2005 – 2009, Keble College, University of Oxford, UK  <b>DPhil (PhD) in Computer Science;</b></p> <ul style="list-style-type: none"> <li>• Thesis Title: Datalog as a Pointcut Language.</li> </ul> <p>2004 – 2005 St. Anne’s College, University of Oxford, UK  <b>MSc in Computer Science; 1<sup>st</sup> class honours</b></p> <ul style="list-style-type: none"> <li>• Master’s Project: CodeQuest: Source Code Querying with Datalog.</li> </ul> <p>2004 – 2005 Said Business School, University of Oxford, UK  <b>Building a Business – eight-week course</b></p> <p>2001 – 2004 Brandenburg University of Technology, Cottbus, Germany;  <b>BSc in Information and Media Technologies; 1<sup>st</sup> class honours</b></p> <ul style="list-style-type: none"> <li>• Bachelor’s Project: Implementation of an Instruction Set Simulator for the T5016tp 16 Bit RISC test-processor.</li> </ul> <p>1998 – 2001 Baku State University, Baku, Azerbaijan Republic;  <b>Completed 3 of 4 years BSc in Physics of Electronics</b></p> <p>1995 – 1998 International Institute of Invention &amp; Business, Baku, Azerbaijan Republic;  <b>Programming and Information Technologies; 1<sup>st</sup> – class honours</b></p>
Awards	<p><b>Ian Palmer Scholar</b> – Keble college award given on the grounds of academic merit.  <b>Overseas Research Student</b> award – funded my DPhil study at the University of Oxford.  <b>Richard Bird Prize</b> – award for an outstanding MSc dissertation.  <b>Prize for the best overall performance</b> in the MSc in Computer Science.  <b>Shell Centenary Scholarship</b> – funded my MSc study at the University of Oxford.  <b>BTU Scholarship</b> – several awards for outstanding examination performance at the Brandenburg University of Technology, funded by DAAD.</p>
Interests	<p>Travelled extensively around Europe and North America.  Enjoy visiting the theatre and dance Salsa.  Play West-African drums, chess, table tennis, basketball and water polo.  Build social communities.</p>

## **Publications** - list of my academic publications.

### **Technical Papers and Reports:**

- Oege de Moor, Mathieu Verbaere, Elnar Hajiyev, Pavel Avgustinov, Torbjörn Ekman, Neil Ongkingco, Damien Sereni, Julian Tibble. **.QL for Source Code Analysis**. *Proceedings of the Seventh IEEE International Working Conference on Source Code Analysis and Manipulation (SCAM 2007), September 30-October 1, 2007, Paris, France.*
- Oege de Moor, Damien Sereni, Mathieu Verbaere, Elnar Hajiyev, Pavel Avgustinov, Torbjörn Ekman, Neil Ongkingco, and Julian Tibble. **.QL: Object-Oriented Queries Made Easy**. Generative and Transformational Techniques in Software Engineering II, International Summer School, GTTSE 2007, Braga, Portugal, July 2-7, 2007. Revised Papers
- Pavel Avgustinov, Elnar Hajiyev, Neil Ongkingco, Oege de Moor, Damien Sereni, Julian Tibble, Mathieu Verbaere. **Semantics of Static Pointcuts in AspectJ**. *Proceedings of the 34th Annual International ACM SIGPLAN-SIGACT Symposium on Principles of Programming Languages (POPL 2007), January 17-19, 2007, Nice, France.*
- Oege de Moor, Elnar Hajiyev, Mathieu Verbaere. **Object-Oriented Queries over Software Systems** (abstract of invited talk). *Proceedings of the 2007 ACM SIGPLAN Workshop on Partial Evaluation and Semantics-based Program Manipulation (PEPM 2007), January 15-16, 2007, Nice, France.*
- Pavel Avgustinov, Eric Bodden, Elnar Hajiyev, Oege de Moor, Neil Ongkingco, Damien Sereni, Ganesh Sittampalam, Julian Tibble, Mathieu Verbaere. **Aspects and Data Refinement**. *Proceedings of the Formal Approaches to Software Testing and Runtime Verification, First Combined International Workshops (FATES 2006 and RV 2006), August 15-16, 2006, Seattle, WA, USA.*
- Pavel Avgustinov, Eric Bodden, Elnar Hajiyev, Laurie J. Hendren, Ondřej Lhoták, Oege de Moor, Neil Ongkingco, Damien Sereni, Ganesh Sittampalam, Julian Tibble, Mathieu Verbaere. **Aspects for Trace Monitoring**. *Proceedings of the Eighth International Conference on Mathematics of Program Construction (MPC 2006), July 3-5, 2006, Kuressaare, Estonia.*
- Pavel Avgustinov, Elnar Hajiyev, Neil Ongkingco, Oege de Moor, Damien Sereni, Julian Tibble, Mathieu Verbaere. **Semantics of Static Pointcuts in AspectJ**. *Technical Report abc-2006-3, AspectBench Compiler Project, 2006. <http://aspectbench.org/techreports#abc-2006-3>.*
- Pavel Avgustinov, Elnar Hajiyev, Neil Ongkingco, Oege de Moor, Damien Sereni, Julian Tibble, Mathieu Verbaere. **Datalog Semantics of Static Pointcuts in AspectJ 1.2.1**. *Technical Report abc-2006-2, AspectBench Compiler Project, 2006. <http://aspectbench.org/techreports#abc-2006-2>.*
- Elnar Hajiyev, Mathieu Verbaere and Oege de Moor. **CodeQuest: Scalable Source Code Queries with Datalog**. *Proceedings of the 20th Annual European Conference on Object-Oriented Programming (ECOOP 2006), July 03-07, 2006, Nantes, France.*

### **Workshops and Posters:**

- Elnar Hajiyev, Mathieu Verbaere, Oege de Moor. **Improve Software Quality with SemmleCode - an Eclipse Plugin for Semantic Code Search**. *In Companion of the 22<sup>nd</sup> Annual International ACM SIGPLAN Conference on Object-Oriented Programming, Systems, Languages and Applications (OOPSLA 2007), October 21-25, 2007, Montréal, Canada. ACM Press 2007 (extended abstract).*

- Elnar Hajiyev, Neil Ongkingco, Pavel Avgustinov, Oege de Moor, Damien Sereni, Julian Tibble, Mathieu Verbaere. **Datalog as a Pointcut Language in Aspect Oriented Programming.** In *Companion of the 21<sup>th</sup> Annual International ACM SIGPLAN Conference on Object-Oriented Programming, Systems, Languages and Applications (OOPSLA 2006), October 22-26, 2006, Portland, OR, USA.* ACM Press 2006 (poster + extended abstract).
- Elnar Hajiyev, Mathieu Verbaere and Oege de Moor. **CodeQuest with Datalog.** *The 5<sup>th</sup> Annual International Conference on Aspect-Oriented Software Development (AOSD 2006), March 20-24, 2006, Bonn, Germany* (poster).
- Elnar Hajiyev, Mathieu Verbaere, Oege de Moor and Kris de Volder. **CodeQuest: Source Code Querying with Datalog.** In *Companion of the 20<sup>th</sup> Annual International ACM SIGPLAN Conference on Object-Oriented Programming, Systems, Languages and Applications (OOPSLA 2005), October 16-20, 2005, San Diego, CA, USA.* ACM Press 2005 (poster + extended abstract).

**Theses:**

- Elnar Hajiyev. **CodeQuest: Source Code Querying with Datalog.** *Master's Thesis*, Programming Tools Group, University of Oxford, UK, 2005.
- Elnar Hajiyev. **Implementation of an Instruction Set Simulator for the T5016tp 16-Bit RISC Test-Processor.** *Bachelor's Thesis*, Faculty of Mathematics, Natural Sciences and Informatics, Brandenburg University of Technology, Germany, 2004.

## **Appendix** - contains a more detailed description of my past experience.

December 2001 – August 2004

Brandenburg University of Technology, Department of Computer Engineering, Cottbus, Germany;

### Part-time job as a **Software Developer**

#### *I. Parallel programming:*

Developed “MPS” (Multi Processing Simulation) project - program based on MPI (Message Posting Interface) parallel computing middleware for UNIX environment, as well as SOAPS (Simulation On A Parallel System) project – program based on another popular library for parallel programming - PVM (Parallel Virtual Machine). Programs simulate errors on different UNIX clusters and gather results obtained from simulation processes.

#### *II. Took part in some other related projects:*

Programmed supportive tools for a digital fault simulator. Developed several conversion tools linking VHDL with other formats.

November 2003 - August 2004

Brandenburg University of Technology, Department of World Heritage Studies, Cottbus, Germany;

### Part-time job as a **System Administrator**

#### *I. System Administration:*

Administered departments’ local area network, maintained computers and user-software. Assisted to the personnel with solutions of common and complex problems with computer applications.

October 2003 – February 2004

Brandenburg University of Technology, Department of General Economics, Cottbus, Germany;

### Part-time as an **International Tutor and Computer Assistant**

#### *I. Tutor:*

Consulted new international students on selection of subjects, subscription for lectures and exercises, acquisition of dormitory rooms and other standard tasks coming across newcomers.

#### *II. TYPO 3:*

Installed and maintained TYPO3 Content Management System for the department’s website.

#### *III. Web poll:*

Programmed PHP based software for user-oriented restricted-access online polling.

February 2003 – March 2003

AVC Kommunikationssysteme GmbH, Cottbus, Germany

### Full-time job for the time of winter holidays as a **Programmer**

#### *I. Programming of GNU Projects for Linux:*

Further developed Darwin Streaming Server and MPlayer GNU projects for Linux. Programmed some new features allowing seeking during streaming of MPEG4 video and audio data.

December 2000 – September 2001

Azerbaijan Data Network company (Azerbaijan’s biggest ISP), Baku, Azerbaijan Republic;

### Full-time job as a **Programmer**

#### *I. Windows-based applications development:*

Created Internet state monitoring tools like connection speed monitoring, loss percentage monitoring, services (SMTP, POP3, IMAP, NNTP, SNMP, proxy and many other) state monitoring tools which were very useful and important for helping system administrators of the company to solve any instances of connection problems immediately, which makes the company the best Internet Service Provider in Azerbaijan.

#### *II. UNIX scripts development:*

Created particular scripts for UNIX operating systems to control different Internet parameters, indispensable for the system administrators, using C and Perl languages.

#### *III. CGI scripts development using PHP and Perl:*

Developed scripts for the Search Engine Systems in Azerbaijan Internet and multifunctional counters on site visits. In these projects PHP and Perl languages were used for writing CGI scripts to access PostgreSQL and MySQL databases and output the search results.

*IV. Developed local and remote databases, tables and SQL queries:*

Developed the structure (tables, keys, sequences, functions, triggers) of the local and remote PostgreSQL and MySQL databases. Wrote complex embedded SQL queries to databases.

*V. Java-scripts development:*

Programmed many dynamic effects providing user-friendly interface on web pages.

All web projects I participated in at "Azerbaijan Data Network" company can be viewed at [Scissors Art Studio portfolio](#).

June 2000 – November 2000

Top.Az company, Baku, Azerbaijan Republic;

Full-time job as a **Programmer**

*I. Developed CGI scripts using C++ and Perl languages:*

Participated in development of the first large search engines of Azerbaijan: White Pages and Yellow Pages of Azerbaijan Republic – <http://www.whitepages.top.az/> and <http://www.yellowpages.top.az/>. In these projects C++ language was used to write CGI scripts to access MySQL databases and output search results.

I was the leading programmer and project manager of the development of the first Internet Marriage Agency in Azerbaijan - "Woman of Azerbaijan". The project was developed using Perl language. For customer convenience additional page was created for the online site administration. It allowed the control over the database in any part of the world using a web browser by entering an administrator's login and password.

I was also the leading developer and project manager of the first and largest online beauty contest in Azerbaijan - "Oriental Beauty 2000" and later "Oriental Beauty 2001". I have been developing the voting engine and related programs since the beginning of the contest in the year 2000.

*II. Designed dynamic web pages:*

Created different dynamic effects for Web pages using JavaScript. Was the leading programmer and developer of the first online store in Azerbaijan. The site is located on the Internet at <http://www.sabina.az/>. The structure of the site is based on Java scripts and Cookies. The same structure also has been used at <http://shop.top.az/>.

*III. Developed local and client/server databases, tables and SQL queries:*

Developed the structure of the local and remote MySQL databases. Wrote SQL queries to databases. Was responsible for full administration of all databases of the company.

*IV. System maintenance, customization and administration:*

Installed and customized Windows 2000 Professional operating systems on users' computers. Set up local area networks. Installed Windows 2000 Server operating system on the server and customized it for operation as a local Web Server. Installed support for the Perl language on the server. Installed and set up MySQL server for the operation with MySQL databases.

All web projects I participated in at "Top.Az" company can be viewed at [Top.Az Art Studio portfolio](#).

November 1997 – June 2000

IIIB firm, Baku, Azerbaijan Republic;

Freelance, **Computer Consultant and Programmer**

*I. Designed local and client/server databases, tables and SQL queries:*

Constructed structures of local (Paradox 6/7, MsAccess), and remote (INTERBASE) databases. Wrote SQL queries to local, and remote databases.

*II. Developed programs with friendly user interface according to customer needs:*

Created programs with friendly user interface for database access. The programs were intended to register the financial assets and material resources. The programs were developed using Delphi, C++ Builder, Borland and Microsoft Visual C++.

*III. System maintenance and customization:*

Installed operating systems of the Microsoft Windows family and local database systems. Adjusted and optimized operation of the databases and operating systems. Customized database management systems BDE and ODBC. Periodically installed system updates.

*IV. Customer support:*

Taught users to use the features of the developed programs. Consulted users during the usage of the developed programs. Helped in the elimination of the arising errors. Installed updates of the designed programs and database systems.