

Birthday: April 26, 1980
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I am an entrepreneur and an enthusiastic data scientist with experience on social, bio- and neuro-data. I study common characteristics behind various complex networks. Passionate about visualization and telling stories with data, lately I am more focused on the use of big data analytics and Machine Learning in drawing business intelligence, marketing, design of products and user experience.

PROGRAMMING LANGUAGES AND TOOLS

- Programming Languages: *MATLAB, R, Python, Delphi, GNU/BSD scripting, Visual Basic*
- Functional Programming: *Ruby, Scal*
- MapReduce Programming: *Apache Pig, Hadoop, Spark, YARN, HBase, Hive, Spark*
- Workflow Systems: *Apache Oozie, LinkedIn Azkaban*
- Other Database: *MySQL*
- Front-end Development: *HTML5, XML, CSS3, JavaScript*
- Visualization Tools: *Google Charts, D3.js, Tableau*
- Music Programming: *CSound, MaxMSP*
- Machine/Deep Learning Framework: *Caffe, Torch, ConvNet*

INTERESTS

- Big Data
- Statistical Modeling
- Data Mining
- Artificial Intelligence
- Information Retrieval
- Dimension Reduction
- Data Visualization
- Econometrics
- Cluster Analysis
- Bayesian Statistics
- Product Analysis

EDUCATION

- **Norwegian University of Science and Technology (NTNU), Centre for Quantifiable Quality of Service in Communication Systems (Q2S), Trondheim, Norway. (August 2007 – June 2011)**
PhD. Candidate in the Department of Electronics and Telecommunications
Dissertation Title (Scheduling the Defense): *Modeling of Rhythmic Musical Collaboration*
Supervisor: U. Peter Svensson, Professor

- **Sharif University of Technology, Tehran, Iran. (September 2004 – July 2007)**
M.S. in Computer Science, Major: Theory of Computation
Dissertation Title: *Automated Theorem Proving Methods in Modal Logics*
Supervisor: M. Ardeshir, Professor
Cumulative GPA: 18.59 / 20.00
- **K. N. Toosi University of Technology, Tehran, Iran. (September 1997 – July 2003)**
B.S. in Electrical Engineering, Major: Telecommunication
Dissertation Title: *A Programming Language to Synthesize and Analyze Music*
Supervisor: M.S. Abrishamian, Assistant Professor
- **Alborz High School, Tehran, Iran. (September 1993 – September 1997)**
Diploma in Mathematics and Physics

WORK EXPERIENCE

- **ZEDGE Europe AS, (the world's largest mobile content discovery platform), Data Scientist, Trondheim, Norway. (Nov 2011 – Present)**
 - Using Apache Hadoop/Pig/Oozie/YARN/HBase/Spark/Mahout/Hive to process / refine data
 - Using Ruby, Python, Octave, R, to analyze and visualize the data
 - Statistical modeling of web/mobile traffic and validation.
 - Self-initiated collaboration with the PR team to publish articles on data insights, with developer teams for data warehousing, with managers for data-driven decision making and converting data to business insight.
 - Design and full implementation of the tool WITAMIN (Web Interface for Traffic Analysis and Metric Investigation) Including Visualization, Calculation and Prediction of Traffic and Business Metrics using statistical distributions across time, frequency, space and other parameters of data.
 - Design and implementation of the tool User Tracker, to analyze user behavior
 - Prototyping and Supervision of Implementing the tool A3 (Android App Analyzer), a metric system for Google Play.
 - Contributing to Deep Learning Initiative in Trondheim through courses, meetings and forums. Focused on Deep Convolutional Networks.
- **Kavli Institute for Systems Neuroscience, Centre for Neural Computation, Graduate Research Fellow, Trondheim, Norway. (July 2011 – August 2011)**
 - Inferring Network Structure From Spike Data
 - Analyzing data collected from the cells that constitute a positioning system in the brain
 - Being a part of a great research project that was later on awarded the Nobel Prize in medicine in 2014.

Supervisor: Yasser Roudi, Group Leader
References: Edvard and May-Britt Moser ([Nobel laureates](#))
- **Stanford University, Center for Computer Research in Music and Acoustics (CCRMA), CA, USA. (January 2010 – March 2010)**
 - Making musical apps on iOS platform, programming C# on XCode.
 - Holding experiment setups for rhythmic collaboration.

Supervisor: Chris Chafe, Director

- **Café Nim AS, Founder and manager, Trondheim, Norway. (March 2011 – Present)**
 This is a cozy, event-based cultural and nerdy Café Bar and a co-working space that is named after me. I have been so far holding and hosting more than 30 full-band concerts, several hack-days and code-camps, many pub quizzes, several magic shows, scientific talks, art galleries, etc. My role here includes everything that it takes for a foreigner alone to start a successful business in the city center of a European city from the ground up:
 - Bureaucratic challenges:
 - i. Construction & Building Approval
 - ii. Zoning and change of Legal Use
 - iii. Making the stock-based company
 - iv. Food Service Health permits
 - v. Passing exams and courses for Serving Permit
 - vi. Passing exams and courses for Alcohol License
 - Building challenges:
 - i. Design of Ergonomics
 - ii. Building the place from the ground up
 - Managerial challenges:
 - i. Branding
 - ii. Improving the User experience
 - iii. Booking artists
 - iv. PR and Advertisement
 - v. Accounting and taxation
 - vi. Managing staff

- **Valiyacom, Taliya Mobile Operator, Radio Network Planning Engineer, Tehran, Iran (Feb 2006 – May 2007)**
 - Nominal and frequency planning (road and urban sites)
 - Geo-tagging and visualization of mobile sites
 - Mobile network traffic calculation, dimensioning and optimization
 - Drive testing and coverage assessment
 - Technical Telecom Site Survey (TSS)

- **Tamin Machine Services and Management Consultation Co., Tehran, Iran, Network Expert at Technical and Engineering Division, R&D Department of Computer Networks. (July 2004 – May 2005)**
 - LAN installation, test and maintenance
 - Network traffic monitoring and protocol analysis

- **Sima Rayaneh Alborz Co. Ltd., Co-Founder and Managing Director, Tehran , Iran. (May 2003 – March 2004)**
 - Main co-founder of the start-up
 - Web Design and Programming for more than 20 organizations, artists and firms
 - 3D Anaglyph and Autostereogram Imaging

HONORS AND AWARDS

- (November 2012) Placing 4th in the Norwegian Championship of Magic, Performing “Mathemagics”, Trondheim, Norway.
- (August 2007) Top Student – The highest GPA since the foundation of department, Department of Computer Science, Sharif University of Technology, Tehran, Iran.
- (June 2006) Member of Office of Exceptional Talents in Sharif University of Technology, Tehran, Iran.

- (September 2004) Winning the Best Article Prizes both in the Telecommunication field and at the senior level, 7th Students National Conference on Electrical Engineering (ISCEE2004).
- (May 2004) Fifth Place, Nationwide Examination for Graduate Admissions in Computer Science, Tehran, Iran.
- (June 2002) The 1st Prize of Solo Section, The 1st National Whistling Festival, University of Art, Tehran, Iran.
- (August 1996) Qualified Student, Young Researchers Club, Ministry of Education, Tehran, Iran.

TEACHING EXPERIENCE

- **Teaching, University of Applied Science and Technology to Bachelor Students, Tehran, Iran.**
Courses: *Web Design* (Spring 2005), *Fundamentals of Electronics* (Spring 2005), *Pascal Programming* (Fall 2004), *Fundamentals of Computer* (Fall 2004)
- **Teaching for Preparation of National Graduate Admission Exam in Computer Science, Mahan Institute, Tehran, Iran.**
Courses: *Mathematical Logic* (Fall 2004), *Theory of Computation* (Fall 2004), *Theory of Languages and Automata* (Winter 2005)
- **Teaching Open Courses, Tehran University, Student Branch of ACM, Tehran, Iran.**
Courses: *MS Windows* (Summer 2002), *Comprehensive Course of MS Office* (Summer 2001)
- **Certificates for Technical and Vocational Institute Training, Iranian Ministry of Labor and Social Affairs, Tehran, Iran.**
Fields: *Adobe Photoshop* (October 2001), *Pascal Programming* (June 2001), *Internet Expertise* (February 2001)

PUBLICATIONS

- **Nima Darabi**, U. Peter Svensson, Jon Forbord, "Root Locus Analysis of Sensorimotor Synchronization", *Journal of Audio Engineering Society (JAES)*, (submitted)
- **Nima Darabi**, U. Peter Svensson, Paul Morten, "Neurologically Motivated Simulation Model of Ensemble Performance", *Journal of Perception*, (submitted)
- **Nima Darabi**, U. Peter Svensson, Jon Forbord, "Parametric Modeling of Human Response to a Sudden Tempo Change", *Audio Engineering Society 129th, San Francisco, CA, USA (AES-2010)*
- **Nima Darabi**, U. Peter Svensson, Chris Chafe, "Toward an algorithm to simulate ensemble rhythmic interaction based on quantifiable strategy functions", *Audio Engineering Society 129th, San Francisco, CA, USA (AES-2010)*
- **Nima Darabi**, U. Peter Svensson, Snorre Farner, "Quantifying the strategy taken by a pair of ensemble hand-clappers under the influence of delay", *Audio Engineering Society 125th (AES-2008)*
- Iman Farghadan, Ahmad Fayaz, **Nima Darabi**, U. Peter Svensson, "Modeling of Nonlinear Active Circuits Using FDTD Approach", *The Proceeding of the 12th WSEAS International Conference in Communication (SPS-DARTS 2007)*
- **Nima Darabi**, Naiem Yeganeh, Sirous Rezaee, Mahdi ZiaeNia, "A Scripting Language Development for Music Performance", *The third annual IEEE BENELUX/DSP Valley Signal Processing Symposium (SPS-DARTS 2007)*

- Rouzbeh Rezvani Naraghi, Abbas Erfanian Omidvar, Abbas Foroutan, **Nima Darabi**, "Time-Frequency Analysis of the Heart-Rate Variability During Physical Test for Early Ischemia Detection", The third annual IEEE BENELUX/DSP Valley Signal Processing Symposium (SPS-DARTS 2007)
- Naiem Yeganeh, Caro Lucas, **Nima Darabi**, Cyrus Rezae, "Using Genetic Algorithm with Group Evolution Powered with Local Search for Finding Fibonacci Levels in Stock Market Prices", The Third International Conference on Artificial Intelligence in Engineering and Technology (ICAJET 2006)
- **Nima Darabi**, Navid Hamed Azimi, Hassan Nojumi, "Recognition of Dastgah and Maqam for Persian Music with Detecting Skeletal Melodic Models", The second annual IEEE BENELUX/DSP Valley Signal Processing Symposium (SPS-DARTS 2006)

READY TO SUBMIT PUBLICATIONS

Note: These are academic work based on results on analyzing data from Zedge (my current work). These have been waiting for publication due to anonymity of results as well as copyright issues. They will hopefully be available to public soon, though they are available to present upon request.

- **Nima Darabi**, "Objective and Subjective Quality Assessment for Digital Content", Nima Darabi, Jon Tingvold, Beate Baier Biribakken
- **Nima Darabi**, "Is your market long tail? Sales concentration vs. diversity of mobile applications", Nima Darabi, Knut O. Hellan
- **Nima Darabi**, "A Statistical Approach To Costumer Retention: Quantifying Engagement and Loyalty in A Market by Using Frequency and Time Distribution", Nima Darabi
- **Nima Darabi**, "Internet-based Content Consumption follows Log-Normal Behavior, A Descriptive Survey"
- **Nima Darabi**, "A Statistical Approach to Quantify Popularity and Longevity of Internet Based Contents"
- **Nima Darabi**, "Inter-event-Intervals for Mobile Applications and the Weber Fechner law: A Double-Pareto-Log-Normal Distribution"
- **Nima Darabi**, "App Rating Patterns and Growth of Applications in the Google Market"
- **Nima Darabi**, "Predicting Web Traffic Trends using Joint Frequency and Time Distributions"
- **Nima Darabi**, "Experimental Multimedia Methods, Crowd-sourcing and A/B Testing"
- **Nima Darabi**, "A Generative Models for Network Growth of Smart Phone Applications"

PERSIAN PUBLICATIONS

- [Dissertation] **Nima Darabi**, "Automated Theorem Proving Methods for Modal Logics", M.S. Thesis under the supervision of M. Ardeshir, Sharif University of Technology (SUT), Department of Mathematical Sciences, Tehran, Iran (July 2007)
- **Nima Darabi**, Naiem Yeganeh, An Algorithm For Recognizing Persian Musical Mode For a Signal, 12th International CSI Computer Conference (CSICC 2007).
- **Nima Darabi**, "Music at the Viewpoint of Digital Signals, Implementing the Navazande Software", 7th Students National Conference on Electrical Engineering (ISCEE2004)

- [Dissertation] **Nima Darabi**, “*Programming Language to Synthesize and Analyze Music: Implementation of the Software ‘Nava’*”, B.S. Thesis under the supervision of M. S. Abrishamian, Department of Electrical Engineering, K. N. Toosi University of Technology, Tehran, Iran (September 2003)
- [Book] **Nima Darabi**, “*The Knowledge of Designing Autostereograms (Implementing Software Jarf-Negar)*”, Rowzaneh Publisher, 2001 (written 1995), Tehran, ISBN 964-334-088-0
- [Dissertation] **Nima Darabi**, “*Multidimensional Geometry in Euclidean Spaces*”, proving more than 80 Theorems in an Axiomatic System about Geometry of Higher Dimensions, Informally as Diploma Thesis, Alborz High School, 1997, Tehran, Iran

THESES SUPERVISED

- Thomas Øvestad, Supervisor: John Sølve Tyssedal, Co-supervisor: **Nima Darabi**, “*Big Data Analysis: Skewed Distributions Obtained from a Mobile Application*”, Specialization Project for Master of Industrial Mathematics, Department of Mathematical Sciences & Zedge, April 2015
- Paul Mertens, Supervisor: **Nima Darabi**, Co-supervisor: Mike X. Cohen, “*Time will tell Explaining the NMA and Chafe Effect as Consequences of Physical Delays*”, Thesis for Master of Science in Acoustics, Brain & Cognitive Sciences University of Amsterdam 2010–2011
- Jon Forbord, Supervisor: Morten Hovd, ITK, Co-supervisors: U. Peter Svensson, **Nima Darabi**, “*Sensorimotor Synchronization – Modeling Human Response to Step Changes*”, Thesis for Master of Science in Engineering Cybernetics, Norwegian University of Science and Technology, Department of Engineering Cybernetics, 2012
- Ola Vikholt Brunborg, Supervisor: U.Peter Svensson, Co-supervisor: **Nima Darabi**, “*Simulation of a Rhythmic Duet under the Influence of Delay*”, Assignment for Master of Science in Acoustics, Norwegian University of Science and Technology, Department of Electrical Engineering, 2010

RELEVANT TALKS

- **Trondheim Developer Conference, Trondheim, Norway, 26 October 2015**
“*Customer Lifetime Value for Mobile and Web Statistics of Retention*”
- **Jabb#30 @ DIGS, Trondheim, Norway, 3 June 2015**
“*History of Café Nim and its Future as an Innovation Platform*”
- **Data Insights meetup, Cambridge, UK, 6 November 2014**
“*Simplicity in Complexity: Big Data Aided Design and Marketing*”
- **TechCrunch Disrupt Hackathon, London, UK, 18-19 October 2014**
“*Happ it! Make it a Happy Habbit!*”, Pitching prototype with Tanja Muetze, Sohail Siadatnejad
- **Trondheim Developer Conference, Trondheim, Norway, 27 October 2014**
“*Is your market Long-tail?*”
- **IxDA meetup, Trondheim, Norway, 5 June 2014**
“*Design & BigData: UX <3 Big Data*”, Joint talk with Berit Alvestrand
- **Trondheim Big Data meetup, Yahoo! Trondheim, 12 February 2014**
“*Statistical Physics in Big Data*”, Joint talk with Knut O. Hellan
- **Weekly Seminar on Mathematical Logic and Philosophy of Mathematics, Sharif University of Technology, Department of Mathematical Sciences, March 2005**
“*Complex Networks Models for Social Networks: Empirical study on Social Data Crawled from Orkut*”, Joint work with Omid Milani under the supervision of Ebad S. Mahmoodian

VOLUNTEER & CULTURAL ACTIVITIES

- (2012) Nominating the Iranian student leader Majid Tavakoli for the Student Peace Prize 2013 for his work on human rights and democracy who was granted the prize, [ISFIT 2013](#)
- (November 2011 – Now) Volunteer activist at [SAIH](#) (the solidarity organization of students and academics in Norway), Trondheim chapter:
 - (May-November 2011) Board member of the local chapter, as Web Responsible and Public Relations (+).
 - (October 2012) Observer at [SAIH general assembly 2012](#).
 - (September 2012) Designing [poster](#) for [2012 campaign's kick-off concert](#), an event which won SAIH Best Event 2012.
 - (April 2012) Hosting the debate meeting "[Challenges on the road to Democracy in the Middle East](#)" in collaboration with Amnesty International and Café Nord-Sør.
 - (April 2012) Translator for Mahnaz Parakand (a member of the Defenders of Human Rights Centre, founded by Nobel Peace Prize laureate Shirin Ebadi) at the event "[Restrictions on a questioning mind](#)" at Amnesty's Human Rights Week (+).
 - (February 2012) Giving a talk on [Internet and Organizing Student Protests in Iran](#)" at the event [Human rights, democracy and the students' struggle in Iran](#) organized by SAIH Blindern (+).
- (2010) Board member of [Nakisa](#) (Cultural and Artistic forum of Iranians in Trondheim)
- (October 2010) Speaking guest at the event "[A Rising Hope – The People Have Spoken](#)", Amnesty International, Trondheim.
- (September 2009 – December 2011) Activity leader and volunteer to work with Persian speaking refuge kids at [Redd Barna](#) (Save the children, Norway)
- (December 2009) Organizing the event "[Let's all be pixels](#)" at the campus of NTNU in coordination with the volunteer students from 60 other universities across the world.
- (October 2009 – Now) Web design and maintenance for [Network of Young Iranians in Berlin](#) formed after the Iranian disputed presidential election, Berlin, Germany.
- (June 2009) Board member and the [representative in Norway](#) for the worldwide "[Green Scroll](#)" initiative.
- (June 2009) Arranging student protests in Trondheim after the disputed presidential election in 2009 (+).
- (February 2009) Participant hosting for the largest International Student Thematic Festival in the World ([ISFIT09](#)) on *Piece Building*, Trondheim, Norway.
- (2006) Member and Activist in Iranian Change for Equality NGO and its Campaign, since its foundation.
- (2004) Part-Time Collaborating with [Shargh Newspaper](#), Media Service, Tehran, Iran.
- (2003) Hosting student events in K.N.T. University of Technology, Tehran, Iran: In remember of the Singer *Farhad Mehrad*, Screening the movie *the Circle* by Ja'far Panahi, Celebration of the Persian new year (Now-rouz), the Second Seminar on Machine Vision & Image Processing, etc.
- (January 2002 – June 2002) Head of International Section, International Thematic Cartoon Festival on Discrimination ([DICFest](#)), University of Art, Tehran, Iran.
- (January 2002 – May 2002) Head of Internet Section, Fourth Festival of Film, Screenplay and Photo ([FSPFest](#)), Tehran, Iran.
- (February 2002) Hosting the TV Program *Not explained about Iran-Iraq War*, I.R.I.B.1 (Iranian Governmental TV channel).
- (Fall 2001) Founding Iranian Student News & Information Network ([SADFA](#)), Faraayand Information Engineering Co. (Ltd), Tehran, Iran.
- (2001) Whistling for Short movies *Not So Far* by Zahra Nouhi and the theater *It's not Dramatic* by Madjid Khosroanjom.
- (1997 to 1999) Active member and recruiter for Iranian Green piece ([GFI](#), Green Front of Iran)
- (1996 to 1997) Activist in Sun's cultural foundation, Tehran, Iran.

CITIZENSHIP

- **Norwegian**
- **Iranian**

LANGUAGES

- **Persian:** Native
- **English:** Fluent
- **Norwegian:** Fluent

DATA-FRIENDLY PERSONALITY FEATURES

- Natural Entrepreneur: *Leading and Team Building*
- Social Butterfly: *Communicating about Data, Story-telling, Brainstorming*
- Visionary and Artistic: *Data Visualization, Infography*
- Right Brain Dominant: *Critical Thinking, Creativity*
- Grapheme–Color Synesthete: *Metaphorical Thinking*