

AMIN GHEIBI

Education

Ph.D., Computer Science, 2010-2015

Carleton University, Ottawa, ON

Research Field: Approximation Algorithms for Geometric Shortest Path, Trajectory Analysis, Computational Geometry Applications in GIS and Robotics

GPA: A+

M.Sc., Computer Science, 2007-2009

Amirkabir University of Technology (Polytechnic of Tehran), Tehran, Iran

Thesis: "Fingerprint Matching Using Computational Geometry Algorithms"

GPA: 19.60 (out of 20)

B.Sc., Math and Computer Science, 2003-2007

Amirkabir University of Technology (Polytechnic of Tehran), Tehran, Iran

GPA: 17.25 (out of 20)

Summer School, Applied Statistics (Clustering and Visualization), A joint program of Statistics Department of Amirkabir University and Université Paris Descartes (Paris 5), 2008.

Online Course, Social and Economic Networks: Models and Analysis, 2013

Offered by Stanford University in Coursera.com, Prof. Matthew Jackson

Accomplished with Distinction

Certificates

IBM Certified Associate Business Process Analyst - Cúram V6.0.5

Research Assistantship

2010-2015

PARADIGM lab, supervisor: Prof. Jorg-Rudiger Sack

Research Topic: Computational Geometry in GIS

Carleton University, Ottawa, ON

2007-2009

ACG lab, supervisor: Prof. Ali Mohades

Research Topic: Application of Computational Geometry in Computer Vision

Amirkabir University of Technology, Tehran, Iran

Selected Publications

Weighted Minimum Backward Frechet Distance, A. Gheibi, A. Maheshwari, J. Sack, In Proceeding of 27th Canadian Conference on Computational Geometry, Kingston, ON, 2015

Minimizing Walking Length in Map Matching, A. Gheibi, A. Maheshwari, J. Sack, In Proceeding of 1st Theoretical Topics in Computer Science (Springer Computer Science Lecture Notes), IPM, 2015

Minimum Backward Frechet Distance, A. Gheibi, A. Maheshwari, J. Sack, C. Scheffer, In Proceeding of 22nd ACM SIGSPATIAL GIS, Dallas, Texas, 2014

SEM Image Processing Techniques To Examine The Morphology Of Polyacrylic Acid Based Nanocomposites, S. Khanlari, A. Gheibi, M. A. Dubé, Annual Conference of the International Society for Biomedical Polymers and Polymeric Biomaterials (ISBPPB), Washington, DC, 2014

Similarity of Polygonal Curves in the Presence of Outliers, J. D. Carufel, A. Gheibi, A. Maheshwari, J. Sack, C. Scheffer, Journal of Computational Geometry: Theory and Application, 47 (5) , pp. 625-641, 2014

Weighted Region Problem in Arrangement of Lines, A.Gheibi, A. Maheshwari, and J. Sack, In Proceeding of 25th Canadian Conference on Computational Geometry, pp. 123-128, 2013

Geometric algorithm for dominant point extraction from shape contour, M. S. Tahaei, S. N.Hashemi, A. Mohades, A. Gheibi, Pattern Analysis and Applications Journal, DOI: 10.1007/s10044-012-0311-9, December 2012

Polygonal Shape Reconstruction in the Plane, A.Gheibi, M.Davoodi, A.Javad, F.Panahi, M.Aghdam, M.Asgaripour, A.Mohades, IET Computer Vision Journal, pp. 97-106, 2011

Particle Swarm Optimization with Voronoi Neighborhood (VPSO), E. Safavieh, A. Gheibi, M. Abolghasemi, A. Mohades, In Proceeding of 14thInternational CSI Computer Conference, Tehran, pp. 397-402, 2009

Fingerprint Matching Using Non-convex Onion Peeling, A.Gheibi, K.Faez, A.Mohades. In Proceeding of Pattern Recognition and Image Analysis, Russia, PRIA 2008

Professional Experience

- Sep 2015 – Present
 - **Position:** Consultant, System Integration, Data Migration
 - **Company:** Deloitte, Toronto, ON

- May 2014 – Aug 2014
 - **Position:** Full stack ASP.NET Web Developer
 - **Company:** Canada Post Corporation, Head Office, Ottawa, ON
- Dec 2009 – Jul 2010
 - **Position:** System Analyst and Designer
 - **Company:** Banafa Qeshm Co., SCADA (Tohid Tunnel), Tehran, Iran
- Oct 2008 – Jan 2009
 - **Position:** Quality Assurance Process Designer
 - **Company:** Pishrovan Sharif, Tehran, Iran
- Jan 2007 – March 2007
 - **Position:** Performance Tester
 - **Company:** Mobile Communication Iran Co. web portal, Tehran, Iran
- Aug 2005 – Oct 2005
 - **Position:** Test Execution Manager
 - **Company:** Iranian national TV (Channel 2) automation, Tehran, Iran
- Oct 2003 – Jul 2005
 - **Position:** Software tester and CASE tools expert
 - **Company:** Advanced ICT Center of Sharif University, Tehran, Iran

Administrative Experience

- Jan. 2013 – Aug. 2015
 - CGTA Journal and PARADIGM Lab administrator, Carleton University, Ottawa, ON
- Jan. 2013 – Aug. 2015
 - Designing and web mastering NSERC Computer Science Liaison Committee's website, Carleton University, Ottawa, ON
- Sep. 2009 – Jan. 2010
 - Executive committee member of the first and second Winter School on Computational Geometry, Amirkabir University of Technology, Tehran, Iran

Teaching

Certificate

- Fundamentals of university teaching , Winter 2012, EDC (Educational Development Center), Carleton University, Ottawa, ON

Instructor

- Game Development, RP4K, Winter 2015, Fall 2014, Ottawa, ON
- Algorithm Analysis and Design (COMP 3804), Fall 2014, Carleton University, Ottawa, ON
- Introduction to computer science for arts and social science students (COMP1001), Winter 2011, Carleton University, Ottawa, ON
- Object-Oriented Systems, Spring 2010, Amirkabir U of Tech, Tehran, Iran
- Software Testing and Quality Assurance, Fall 2009, Mobile Communication

of Iran Co., Tehran, Iran

Teaching Assistant

- Algorithm Analysis and Design, Winter 2015, Fall 2013, Winter 2012, Fall 2012, Fall 2011, Carleton University, Ottawa, ON
- Introduction to Robotics, Winter 2014, Carleton University, Ottawa, ON
- Discrete Math, Winter 2013, Carleton University, Ottawa, ON
- Object-Oriented Software Engineering, Fall 2010, Carleton University, Ottawa, ON
- Computer Principles I (C programming), Fall 2009, Spring 2008, Amirkabir U of Tech, Tehran, Iran
- Advanced Programming (OOP with C++), Fall 2009, Spring 2008, Fall 2007, Amirkabir U of Tech, Tehran, Iran
- Software Development Principles, Spring 2009, Amirkabir U of Tech, Tehran, Iran
- Algorithm Design and Analysis, Fall 2007, Amirkabir U of Tech, Tehran, Iran

Honours and Awards

- My Erdos number is three: Paul Erdos → Richard M. Pollack → Jorg-Rudiger Sack → Amin Gheibi.
- Fields travel bursary, Summer School on Geometry and Data Structures, Waterloo, 2013
- Manitoba University Graduate Student Entrance scholarship (Declined), Winnipeg, MB, 2010
- Ranked 1st among master students in Computer science, Amirkabir U of Tech, Tehran, 2009

Volunteer works

2013-2014

Technology Columnist

Variete, a monthly local paper journal in Ottawa, ON

2011-2013

Vice President of Iranian Students Association of Carleton University

Carleton University, Ottawa, ON

2009-present

Translator in TED conference (Technology, Entertainment and Design)

TED.com

2007-2008

Board Member of students' scientific association in Math and Computer Science Department

Amirkabir U of Tech, Tehran, Iran

SKILL SET

Programming Languages

- C, C++(experienced with packages: Qt, CGAL, Boost) [**Advanced**]
- Java [**Intermediate**]
- C# [**Advanced**]
- MATLAB [**Advanced**]
- GPSS/PC [**Advanced**]
- Perl [**Familiar**]
- Python [**Familiar**]

IBM

- IBM Curam, Business Analyst [**Certified**]
- IBM Rational TestManager [**Advanced**]
- IBM Rational Robot [**Advanced**]
- IBM Rational RequisitePro [**Intermediate**]
- IBM Rational ClearQuest [**Intermediate**]

Software Engineering Topics and Tools

- Software Testing and Quality Assurance [**Advanced**]
- HP QuickTest Professional Automation Tool [**Familiar**]
- Object-Oriented System Analysis and Design [**Intermediate**]
- Methodologies (RUP, XP) [**Intermediate**]

Technologies

- Microsoft .NET (Visual C#, ADO.NET, ASP.NET) [**Advanced**]
- Microsoft SQL Server [**Advanced**]
- Microsoft XNA for Game Development [**Intermediate**]
- libGDX cross-platform for Game Development [**Intermediate**]
- Microsoft Windows Azure and SharePoint [**Familiar**]

Web

- HTML 5, CSS 3, Bootstrap [**Intermediate**]
- Microsoft Expression Web 4 [**Intermediate**]
- Familiar with PHP and Perl [**Familiar**]

Advanced topics

- Computational Geometry [**Advanced**]
- Heuristic Optimization Algorithms [**Advanced**]
- Geographical Information Systems [**Advanced**]
- Supervisory Control and Data Acquisition [**Intermediate**]
- Statistical Pattern Recognition [**Intermediate**]
- Image Processing [**Advanced**]

