

HALE ERTEN

3230 SW Archer Road E122A Gainesville, FL 32608
352-870-9897 herten@cise.ufl.edu
www.cise.ufl.edu/~herten

SUMMARY

Recent Ph.D. graduate in Computer Science with research interests as algorithms, computational geometry and in particular mesh generation. Author of the licensed quality triangulation software aCute. Experienced in developing different kinds of software, especially the ones related to challenging computational geometry problems. Innovative problem solver who demonstrated ability to acquire technical knowledge and skills rapidly. Exceptional academic achievements and strong leadership/organization skills.

EDUCATION

University of Florida Gainesville, FL
Department of Computer and Information Sciences & Engineering 2005 - Expected December 2009
PhD Candidate; current GPA of 4.00/4.00
Advisor: Dr. Alper Üngör
Successfully Defended Dissertation Title: Premium Quality Steiner Triangulations

University of Florida Gainesville, FL
Department of Computer and Information Sciences & Engineering 2005 - 2008
Non-Thesis M.S. Degree received, GPA of 4.00/4.00

Bogazici University Istanbul, Turkey
Department of Computer Engineering 2000 - 2005
B.S. degree, GPA of 3.67/4.00; graduated at 3rd place

COMPUTER SKILLS

Languages: C, C++, Fortran, Java, Perl, Assembly, ProLog, Scheme, C#, Korn Shell Scripting, BASH Shell Scripting, RPAL, OpenGL

Web Technologies: HTML, XML, ASP.NET, CGI, VBScript, JavaScript, PHP

Operating Systems: MS-DOS, Windows 98/2k/Xp/2003 Server, Unix/Linux OS, Solaris

Others: MS Office(Excel, Word, PowerPoint, Visio, Access), SQL Server, Microsoft Visual Studio, MATLAB, Arena, L^AT_EX, Xlinux, PostGreSql Server, MPich, TORA, ORACLE, MySQL

PUBLICATIONS/TALKS

Talks

- **Intel Corporation, Computational Lithography Group** Hillsboro, OR
October 2009
Premium Quality Steiner Triangulations, Hale Erten.

Journal Papers

- **Applied Numerical Mathematics** Submitted 2009
Computing Triangulations without Small and Large Angles, Hale Erten, Alper Üngör.
- **SIAM Journal of Scientific Computing** Vol.31, No.3
pp. 2103-2130 (2009)
Quality Triangulations with Locally Optimal Steiner Points, Hale Erten, Alper Üngör.

Conferences/Workshops

- **18th International Meshing Roundtable** Salt Lake City, UT
October 2009
Mesh Smoothing Algorithms for Complex Geometric Domains, Hale Erten, Alper Üngör, Chunchun Zhao.
- **6th International Symposium on Voronoi Diagrams** Copenhagen, Denmark
June 2009
Computing Triangulations with No Small No Large Angles, Hale Erten, Alper Üngör.

HALE ERTEN

- **CSRI Summer Proceedings 2007** Albuquerque, NM
December 2007
Mesh Optimization for Curved Domains with Target-Matrix Paradigm, Hale Erten, P. M. Knupp.
- **19th Canadian Conference on Computational Geometry** Ottawa, Canada
August 2007
Computing Acute and Non-obtuse Triangulations, Hale Erten, Alper Üngör.
- **19th Canadian Conference on Computational Geometry** Ottawa, Canada
August 2007
Triangulations Loosing Bundles and Weight, Cem Boyacı, Hale Erten, Alper Üngör.
- **Symposium on Geometry Processing** Barcelona, Spain
July 2007
Triangulations with Locally Optimal Steiner Points, Hale Erten, Alper Üngör.
- **16th Fall Workshop on Computational and Combinatorial Geometry** Smith College, Northampton, MA
November 2006
On Computing Meshes with Large Smallest Angles, Hale Erten, Alper Üngör.

WORK EXPERIENCE

Research Assistant

CISE Department, University of Florida

August 2008 - Present
May 2006 - January 2007
Gainesville, FL

- Mesh generation and triangulation related projects.
 - No small angle triangulations.
 - No large angle (acute/non-obtuse) triangulations.
 - No small no large angle triangulations.
 - Minimum weight Steiner triangulations.
 - Mesh smoothing on complex geometric domains.
 - Data set generation via automated programs.

Teaching Assistant

CISE Department, University of Florida

August 2005 - Present
Gainesville, FL

- Several computer science courses.
 - Analysis of Algorithms (graduate level).
 - Applications of Discrete Structures (discussion leader).
 - Software Engineering (discussion leader).
 - Advanced Programming in Java.
 - Introduction to Programming in Java.
 - Introduction to Programming in C.

Research Assistant

Anesthesiology Department, University of Florida

February 2008 - May 2008
Gainesville, FL

- MATLAB-based project related to detecting blood vessels on medical video data.
 - Edge detection and several other methods combined for detection.
 - Ran the several experiments on the provided video data.

Software & Database Specialist

OACR, University of Florida

March 2007 - April 2007
Gainesville, FL

- Online survey system (CAT).
 - The survey system implemented/modified in HTML, Perl/CGI languages.
 - Submitted to be used by more than 250 university departments.
 - Technical support was provided for OACR department, during the completion of the survey by the units.
 - Upon completion, Access database was designed and necessary queries were created for data processing.
 - Sample reports and charts were created as part of the final data compilation.

HALE ERTEN

INTERNSHIP EXPERIENCE

SolidWorks Corporation, Research & Development Group
3D Mechanical Design and 3D CAD Software

May/June/July/August 2008
Concord, MA

- 3D mesh generation (for solid bodies).
 - Worked on developing a new algorithm for 3D mesh generation feature of SolidWorks.
 - Completed the necessary preliminary research and development work.
 - The project aimed to create high quality mesh elements quickly and in parallel.

Sandia National Laboratories
Computer Science Research Institute (CSRI)

May/June/July 2007
Albuquerque, NM

- Mesh generation and optimization for domains with curved boundaries.
 - Literature survey on mesh generation and optimization for domains with curved boundaries.
 - Theoric-based algorithms have been implemented in C++ language.
 - A short paper on the work for Proceedings of Sandia National Laboratories.

Turkcell Communication Services

September 2004
Istanbul, Turkey

- Database operations in a large datawarehouse.
 - Wrote Unix Shell Scripts and C programs for updating database tables by the help of SqlPlus.
 - Implemented some Procedures and Triggers on TOAD for certain operations onto the tables.

Microsoft Corporation

July/August 2004
Istanbul, Turkey

- Microsoft Summer School Program 2004.
 - Worked on Windows 2003 Server for implementation and management of network services in a real system.
 - Wrote applications on Microsoft SQL Server 2003.
 - Completed Web portal application on Microsoft Visual Studio 2005 (using C#) with a team.

Veripark A. S.

January/February 2004
Istanbul, Turkey

- Automation project.
 - Designed user interfaces for an existing project.
 - Constructed technical notes about the use cases in the project.
 - Provided some help to improve the current intranet interfaces.

PROGRAMMING EXPERIENCE

- Various course projects.
 - using C, C++, Java, CGI-Perl in Matlab, Visual Studio, Eclipse as well as other languages and domains.
 - employed SQL, Oracle, mySQL, postgre-SQL and other database systems.
 - also used OpenGL for graphics programming.
- Various internship/part-time job projects.
 - using C, C++, C#, CGI-Perl, OpenGL, Matlab.
 - part of a CAD software or a mathematical tool.
 - employed SQL, Oracle and other database systems.
- Various research projects.
 - using C, Java, Matlab.
 - aCute software as an add-on to Triangle software.
 - Extending the well-known Triangle software (around 15000 lines of code).
 - Implementation of several mesh smoothing algorithms in C.
 - Data set creation programs in Java, MATLAB and C++.

HALE ERTEN

HONORS/AWARDS/LICENSES

Licensee

- aCute: A Premium Quality Meshing Software, a University of Florida licensed product, 2009.

Recipient

- RGP Travel Grant, Office of Research and Graduate Programs, University of Florida, 2009.
- CISE Travel Grant, Department of Computer & Information Science & Engineering, University of Florida, 2009.
- Grace Hopper Celebration of Women in Computing Full NSF Scholarship, 2009.
- CRA-W Career Mentoring Workshop Scholarship, 2009.
- Certificate of Appreciation for the Outstanding Contribution to the Success of the Bi-annual CISE Career Development Workshop, Department of Computer & Information Science & Engineering, University of Florida, Fall 2008 and Spring 2009.
- Certificate of Achievement for Outstanding Academic Accomplishment, University of Florida International Center, 2006 and 2007.
- Admitted to Ph.D. program with a Full Assistantship in Department of Computer & Information Science & Engineering, University of Florida , 2005.
- Ranked 3rd place, Department of Computer Engineering, Bogazici University, 2005.
- Graduated as a High Honor Student from Bogazici University, 2005.

Participant

- Selected for participating competitions as a member of High School Math Team for Turkish Math Olympics, 1999.

LEADERSHIP/MEMBERSHIP ACTIVITIES

Vice President

University of Florida ASCIE 2008 - 2009

ASCIE: Association of Graduate Students in Computer Info. & Sci. and Engineering

- Organized CISE Student Orientations.
- Organized Bi-annual CISE Career Development Workshops (around 500 participants).
- Organized Annual CISE International Potluck (Cultural Interactions).
- Organized Annual CISE Departmental Picnic (around 300 participants).
- Participated in BEC Holiday cheer events (Holiday lunch and events for underprivileged primary school students and their families in Gainesville.)
- Organized and co-moderated the bi-weekly ASCIE meetings.
- Responsible for necessary announcements and various events.

University of Florida TSA 2006 - 2007

TSA: Turkish Student Association

- Organized annual events including picnics, dinners, coffee meetings.
- Participated during international month via several events to present Turkish culture to UF and Gainesville community.
- Organized Annual Turkish Cultural Night (around 400 participants.)
- Raised money for the association other non-profit organizations (Participated in several Student government based fundraising events.)
- Organized and participated in several cultural advertising events, including cultural movie nights, potlucks...

Founder Member

IEEE Women in Engineering Branch

2005
Bogazici University, Turkey

HALE ERTEN

Member

SWE, Society of Women Engineers (Attended meetings, as a speaker as well.)

2009

IEEE, Institute of Electrical and Electronics Engineers

2001 - 2005

School Handball Team

School National Folk Dance Group (Ranked 2nd place in Regional Championships)

REFERENCES

Available upon request.