Adam Fidel

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EDUCATION

Texas A&M University, College Station, TX, USA

Doctor of Philosophy (Ph.D.) in Computer Science — Aug 2010 – Present
Cumulative GPA: 4.0 / 4.0
Advisors: Professors Nancy Amato and Lawrence Rauchwerger
Research areas: High performance computing, parallel algorithms, parallel graph processing.

Texas Tech University, Lubbock, TX, USA

Bachelor of Science (B.S.) in Computer Science — Aug 2006 – May 2010
Summa Cum Laude
Cumulative GPA: 4.0 / 4.0

WORK EXPERIENCE

Google, Mountain View, CA, USA

Software Engineer, Ph.D. Intern — Sep 2015 – Dec 2015
Member of the search infrastructure team.
Designed and implemented parallel graph mining algorithms for massive scale graphs.

RESEARCH EXPERIENCE

Texas A&M University - Parasol Lab, College Station, TX, USA

Research Assistant — May 2010 – Present
Developer of STAPL, a parallel superset of the C++ Standard Template Library.
Advisors: Professors Nancy Amato and Lawrence Rauchwerger

University of Massachusetts, Amherst, Amherst, MA, USA

Undergraduate Research Assistant — May 2009 – Aug 2009
Automatic compiler backend generation targeting JikesRVM.
Advisor: Professor J. Eliot B. Moss

PEER REVIEWED PUBLICATIONS

Best Paper Finalist. Harshvardhan, Adam Fidel, Nancy M. Amato, Lawrence Rauchwerger, "An Algorithmic Approach to Communication Reduction in Parallel Graph Algorithms," In Proc. Int. Conf. on Par. Arch. and Comp. Tech. (PACT), San Francisco, CA, USA, November 2015.

Ioannis Papadopoulos, Nathan Thomas, Adam Fidel, Dielli Hoxha, Nancy M. Amato, Lawrence Rauchwerger, "Asynchronous Nested Parallelism for Dynamic Applications in Distributed Memory," In Wkshp. on Lang. and Comp. for Par. Comp. (LCPC), Raleigh, NC, USA, September 2015.

Ioannis Papadopoulos, Nathan Thomas, Adam Fidel, Nancy M. Amato, Lawrence Rauchwerger, "STAPL-RTS: An Application Driven Runtime System," In *International Conference on Supercomputing (ICS)*, Newport Beach, California, USA, Jun 2015.

Harshvardhan, Brandon West, Adam Fidel, Nancy M. Amato, Lawrence Rauchwerger, "A Hybrid Approach To Processing Big Data Graphs on Memory-Restricted Systems," In Proc. Int. Par. and Dist. Proc. Symp. (IPDPS), Hyderabad, India, May 2015.

Best Paper Award. Harshvardhan, Adam Fidel Nancy M. Amato, Lawrence Rauchwerger, "KLA: A New Algorithmic Paradigm for Parallel Graph Computations," In Proc. Int. Conf. on Par. Arch. and Comp. Tech. (PACT), Edmonton, Alberta, Canada, Aug 2014.

Adam Fidel, Sam Ade Jacobs, Shishir Sharma, Nancy M. Amato, Lawrence Rauchwerger, "Using Load Balancing to Scalably Parallelize Sampling-Based Motion Planning Algorithms," In Proc. Int. Par. and Dist. Proc. Symp. (IPDPS), Phoenix, Arizona, USA, May 2014.

Harshvardhan, Adam Fidel, Nancy Amato and Lawrence Rauchwerger "The STAPL Graph Library". In Wkshp. on Lang. and Comp. for Par. Comp. (LCPC), Tokyo, Japan, Sep 2012, pp. 46-60.

Gabriel Tanase, Antal Buss, Adam Fidel, Harshvardhan, Ioannis Papadopoulos, Olga Pearce, Timmie Smith, Nathan Thomas, Xiabing Xu, Nedhal Mourad, Jeremy Vu, Mauro Bianco, Nancy M. Amato, Lawrence Rauchwerger "The STAPL Parallel Container Framework". In Proc. ACM SIGPLAN Symp. Prin. Prac. Par. Prog. (PPoPP), Feb 2011, pp. 235-246.

Antal Buss, Adam Fidel, Harshvardhan, Timmie Smith, Gabriel Tanase, Nathan Thomas, Xiabing Xu, Mauro Bianco, Nancy M. Amato, Lawrence Rauchwerger. "The STAPL pView". In Wkshp. on Lang. and Comp. for Par. Comp. (LCPC), Houston, Texas, Oct 2010, pp. 261-275.

OTHER PUBLICATIONS

Adam Fidel, Nancy M. Amato, Lawrence Rauchwerger, "From Petascale to the Pocket: Adaptively Scaling Parallel Programs for Mobile SoCs," poster session presented at Int. Par. and Dist. Proc. Symp. (IPDPS) PhD Forum, Phoenix, Arizona, USA, May 2014

Adam Fidel, Sam Ade Jacobs, Shishir Sharma, Lawrence Rauchwerger, Nancy M. Amato, "Load Balancing Techniques for Scalable Parallelization of Sampling-Based Motion Planning Algorithms," Technical Report, TR13-002 , Parasol Laboratory, Department of Computer Science, Texas A&M University, Mar 2013.

Antal Buss, Timmie Smith, Gabriel Tanase, Natham Thomas, Lena Olson, Adam Fidel, Mauro Bianco, Nancy M. Amato, Lawrence Rauchwerger "Design for interoperability in STAPL: pMatrices and linear algebra algorithms". Technical Report TR08-003, Dept. of Computer Science, Texas A&M University, August 2008.

TEACHING EXPERIENCE

Texas A&M University, College Station, TX, USA
Teaching Assistant, Spring 2012 and Spring 2013 — 2012 – 2013
CSCE 221 – Data Structures and Algorithms (honors section)

HONORS & AWARDS

Best Paper Finalist — 2015
Parallel Architectures and Compilation Techniques (PACT)

Best Paper Award — 2014
Parallel Architectures and Compilation Techniques (PACT)

2nd Place of Texas A&M IAP Research Poster Contest — 2014
Texas A&M University

Texas A&M Graduate Diversity Fellowship — 2010–2013
Dept. of Comp. Sci. and Eng., Texas A&M University

Teaching Assistant Teaching Excellence Award — 2012
Dept. of Comp. Sci. and Eng., Texas A&M University

CRA-W/CDC Distributed Research Experiences for Undergraduates — 2009
University of Massachusetts, Amherst

Engineering Scholarship, Baker Hughes — 2008
Texas Tech University

CRA-W/CDC Distributed Research Experiences for Undergraduates — 2008
Texas A&M University

Texas Tech ACM Junior of the Year — 2008

Scholarship in Computer Science, Raytheon — 2007
Texas Tech University

President's List — 2006 – 2010
Texas Tech University
For attaining a semester GPA of 4.0.

PEER REVIEWER

SIGPLAN Conference on Principles and Practice of Parallel Programming (PPoPP)
ACM International Conference on Supercomputing (ICS)
ACM Programming Language Design and Implementation (PLDI)
International Conference on Parallel Architectures and Compilation Techniques (PACT)
IEEE International Parallel & Distributed Processing Symposium (IPDPS)
Wkshp. on Languages and Compilers for Parallel Computing (LCPC)
International Systems and Storage Conference (SYSTOR)
High Performance Computing Conference (HiPC)
Int'l Symp. on Computer Architecture and High Performance Computing (SBAC-PAD)

PROFESSIONAL ACTIVITIES

A Festschrift for Bjarne Stroustrup, College Station, TX, USA
Student Volunteer 2012

Parallel Architectures and Compilation Techniques, Galveston Island, TX, USA
Student Volunteer 2011

Association for Computing Machinery
Student Member 2010 – Present

Institute of Electrical and Electronics Engineers
Student Member 2010 – Present

SKILLS

C++ (*Boost, STL*), MPI, OpenMP, Javascript (*Node, React*), Python, Fortran, R

https://github.com/ledif/

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