NADEEM ABDUL HAMID *Curriculum Vitae*

Berry College, Dept. of Math & Computer Science
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EDUCATION

2005 *Ph.D., M.Phil., Computer Science*
Yale University, New Haven, CT
Thesis: A Syntactic Approach to Foundational Proof-Carrying Code
Advisor: Zhong Shao

2001 *M.S., Computer Science*
Yale University, New Haven, CT

1999 *B.S., Computer Science (Mathematics minor) Summa Cum Laude*
University of New Haven, West Haven, CT

PRESENT POSITION

2010 – *Associate Professor, Computer Science*
2004-2010 *Assistant Professor, Computer Science*
Berry College, Mount Berry, GA

PROFESSIONAL EXPERIENCE

2001-2003 *Teaching Fellow*
(Intro. to Programming; Operating Systems; Formal Semantics)
Yale University, New Haven, CT

1994-1999 *Independent consultant/programmer*
Y2K legacy code/Biomedical data analysis (Spacelabs Medical, Hamden, CT)
Game development (Heliotrope Studios, Guilford, CT)
Retail software development/technical documentation and support (Northeast Systems Group, East Haven, CT)
Graphic/layout editor, *Hamden Visions* magazine (Hamden, CT); awarded "Best New England School Newspaper")
Private tutoring (Computer Science/C++/Java)

1996-1997 *Math/Science tutor*
Center for Learning Resources
University of New Haven, West Haven, CT

REFEREED PUBLICATIONS

Nadeem Abdul Hamid. 2016. A Functional Flipped CS1. *Journal of Computing Sciences in Colleges*. 32, 2 (December 2016), 120-126.

Hamid, N.A. 2016. A Generic Framework for Engaging Online Data Sources in Introductory Programming Courses. In *Proceedings of the 2016 ACM Conference on Innovation and Technology in Computer Science Education (ITiCSE '16)*. ACM, New York, NY, USA, 136-141.

Cochran, Z. R. and Hamid, N.A. 2012. Convex Hull Game: A Tangible Context For Algorithms And Computer Graphics. *Journal of Computing Sciences in Colleges*. 28, 2 (December 2012), 124-131.

Hamid, N.A. 2012. Automated Web-based User Interfaces for Novice Programmers. In *Proceedings of the 50th Annual Southeast Regional Conference* (ACM-SE '12). ACM, New York, NY, USA, 42-47.

Hamid, N.A., and Castleberry, Caleb. 2010. Formally Certified Stable Marriages. In *Proceedings of the 48th Annual ACM Southeast Regional Conference* (Oxford, Mississippi, Apr. 15 - 17, 2010). ACM, New York, NY, Article 34, 6 pages. DOI=10.1145/1900008.1900056.

Hamid, N.A. 2009. Pattern Matching on Objects in Java. *Journal of Computing Sciences in Colleges*. 25, 1 (October 2009), 51-57.

Hamid, N. A. 2008. Certified Code Development for a Microcontroller Architecture (Extended abstract). In *Proceedings of the 46th Annual ACM Southeast Regional Conference* (Auburn, Alabama, Mar. 28 - 29, 2008). ACM Press, CDROM (2008) ISBN 9781605581057/08/03.

Hamid, N. A. 2007. A lightweight framework for peer-to-peer programming. *Journal of Computing Sciences in Colleges*. 22, 5 (May 2007), 98-104.

Hamid, N. A. 2007. Integrating a certified memory management runtime with proof-carrying code. In *Proceedings of the 2007 ACM Symposium on Applied Computing* (Seoul, Korea, Mar. 11 – 15, 2007). SAC '07. ACM Press, New York, NY, 1526-1533.

Hamid, N. A., and Shao, Z. 2004. Interfacing hoare logic and type systems for foundational proof-carrying code. In *Proceedings of the 17th International Conference on Theorem Proving in Higher Order Logics* (Park City, Utah, Sep. 14 – 17, 2004). K. Slind, A. Bunker, and G. Gopalakrishnan, Eds. Lecture Notes in Computer Science, vol. 3223. Springer-Verlag, Berlin, 118-135.

Yu, D., Hamid, N. A., and Shao, Z. 2004. Building certified libraries for PCC: dynamic storage allocation. *Science of Computer Programming.* 50, 1-3 (Mar. 2004), 101-127.

Hamid, N. A., Shao, Z., Trifonov, V., Monnier, S., and Ni, Z. 2004. A Syntactic Approach to Foundational Proof-Carrying Code. *Journal of Automated Reasoning.* 31, 3-4 (Jan. 2004), 191-229.

Yu, D., Hamid, N. A., and Shao, Z. 2003. Building certified libraries for PCC: dynamic storage allocation. In *Proceedings of the 12th European Symposium on Programming* (Warsaw, Poland, Apr. 7 – 11, 2003). P. Degano, Ed. Lecture Notes in Computer Science, vol 2618. Springer-Verlag, Berlin. 363-379.

Hamid, N. A., Shao, Z., Trifonov, V., Monnier, S., and Ni, Z. 2002. A Syntactic Approach to Foundational Proof-Carrying Code. In *Proceedings of the 17th Annual IEEE Symposium on Logic in Computer Science* (Copenhagen, Denmark, July 22 - 25, 2002). LICS. IEEE Computer Society, Washington, DC, 89-100.

PROFESSIONAL PRESENTATIONS

2017. A Functional Flipped CS1. Paper presented at 30th Annual Consortium for Computing Sciences in Colleges Southeastern Conference, CCSC-SE 2016 (Asheville, NC, Nov. 4-5, 2016).

2016. A Generic Framework for Engaging Online Data Sources in Introductory Programming Courses. Paper presented at 21th Annual Conference on Innovation and Technology in Computer Science Education, ITiCSE'16 (Arequipa, Peru, Jul. 11-13, 2016).

2014. Towards Engaging Big Data for CS1/2. Poster presentation with Steven Benzel at 45th ACM Technical Symposium on Computer Science Education, SIGCSE'14 (Atlanta, GA, Mar. 2014).

2013. Formal Verification of Change Making Algorithms. Poster presentation with Brook Bowers at 51st Annual ACM Southeast Regional Conference (Savannah, GA, Apr. 4-6, 2013).

2012. Automated web-based user interfaces for novice programmers. Paper presented at 50th Annual ACM Southeast Regional Conference (Tuscaloosa, AL, Mar. 29-31, 2012).

2011. Web UI Teachpack. RacketCon workshop, Northeastern University (Boston, Massachusetts, Jul. 23-24, 2011).

2010. Formally Certified Stable Marriages. Paper presented at 48th Annual ACM Southeast Regional Conference (Oxford, Mississippi, Apr. 15-17, 2010).

2009. Pattern matching on objects in Java. Paper presented at 16th Annual Consortium for Computing Sciences in Colleges Midwestern Conference, CCSC-MW 2009 (Chicago, Illinois, Oct. 9-10, 2009).

2008. Temporal Reasoning for Machine Code. Short paper presented at 15th International Conference on Logic for Programming, Artificial Intelligence, and Reasoning, LPAR 2008 (Doha, Qatar, Nov. 23-27, 2008).

2008. Theorem proving with the COQ proof assistant: tutorial presentation. Twenty-Second Annual Consortium for Computing Sciences in Colleges Southeastern Conference, CCSC-SE 2008 (Augusta, Georgia, Nov. 7-8, 2008). Abstract in *Journal of Computing Sciences in Colleges*. 24, 2 (Dec. 2008), 230.

2008. Certified Code Development for a Microcontroller Architecture. Extended abstract presented at 46th Annual ACM Southeast Regional Conference (Auburn, Alabama, Mar. 28 - 29, 2008).

2007. A lightweight framework for peer-to-peer programming. Paper presented at Fifth Annual Mid-South Consortium for Computing Sciences in Colleges, CCSC-MS 2007 (Monroe, Louisiana, Mar. 30-31, 2007).

2006. Mechanized reasoning for binding constructs in typed assembly language using Coq. *1st Informal ACM SIGPLAN Workshop on Mechanizing Metatheory* (Portland, Oregon, Sep. 21, 2006).

2005. Certified memory management for proof-carrying code: a region-based type system and runtime library (Poster presentation). In *Proceedings of the 43rd Annual ACM Southeast Regional Conference - Volume 2* (Kennesaw, Georgia, Mar. 18 - 20, 2005). ACM Press, New York, NY, 248-249.

2002. A syntactic approach to foundational proof-carrying code. Talk presented at IBM Programming Languages Day (Hawthorne, New York, May 7, 2002) .

OTHER PROFESSIONAL DEVELOPMENT

Attended “Racket School of Semantics and Languages” (July 10-14, 2017), University of Utah, Salt Lake City, Utah.

Attended “TeachScheme!-ReachJava” summer workshop (advanced Java track) (July 20-24, 2009), Northeastern University, Boston, Massachusetts.

Attended "TeachScheme!-ReachJava" summer workshop (introductory Scheme track) (July 7-11, 2008), Northeastern University, Boston, Massachusetts.

Attended "How to Run a [Computing] Summer Camp – Logistics" workshop (Dec. 14, 2007), Georgia Tech, Atlanta, Georgia.

Attended "Asian Studies Infusion" workshop (May 7-8, 2007), Berry College, Mount Berry, Georgia.

Attended CCSC Southeast Conference (Nov. 10 – 11, 2006). Lipscomb University, Nashville, Tennessee.

Attended "Python First: A Lab-Based Digital Introduction to Computer Science" summer workshop (June 19-22, 2006). Chapman University, Orange, California.

Attended ORNL Research Alliance in Math and Science workshop (Dec. 2004). Oak Ridge, Tennessee.

Attended TYPES Summer School'02 (Sep. 2 – 13, 2002). Giens, France.

GRANTS (INTERNAL)

Jul. 2016	School of Mathematics and Natural Sciences Travel Grant to present at ITiCSE'16, Arequipa, Peru.
Mar. 2014	School of Mathematics and Natural Sciences Travel Grant to present poster at SIGCSE'14, Atlanta, GA.
Sep. 2013	School of Mathematics and Natural Sciences Travel Grant to attend and chair 'Nifty Assignments' session at the CCSC Southeastern conference (CCSC-SE 2013), Furman University.
Mar. 2012	School of Mathematics and Natural Sciences Travel Grant to attend and present research at the 50th ACM Southeast Conference, Tuscaloosa, AL.
May 2011	School of Mathematics and Natural Sciences Travel Grant to attend and present at RacketCon workshop, Northeastern University, Boston, MA; amount of grant $695.
Mar. 2010	School of Mathematics and Natural Sciences Travel Grant to attend and present research at the 48th ACM Southeast Conference in Oxford, MS; amount of grant $990.

Aug. 2009 School of Mathematics and Natural Sciences Travel Grant to attend and present research at the CCSC Midwestern conference (CCSC-MW 2009) in Chicago, IL; amount of grant $625.00.

Jul. 2008 Berry College Faculty Development Grant: Motivating Computer Science Education with Personal Robots; amount of grant $1,000.00.

Jan. 2008 School of Mathematics and Natural Sciences Development of Undergraduate Research grant: Certifying Delay Routines for PIC Microprocessors; amount of grant $800.00.

Mar. 2007 Berry College Faculty Development Grant: Motivating Introductory Computer Science with Personal Robots; amount of grant $2,000.00.

Jan. 2007 School of Mathematics and Natural Sciences Travel Grant to attend and present research at the Fifth Annual Mid-South Consortium for Computing Sciences in Colleges conference (CCSC-MS 2007) in Monroe, LA; amount of grant $760.00.

Oct. 2006 School of Mathematics and Natural Sciences Travel Grant to attend and present research at the 22nd Annual ACM Symposium on Applied Computing in Seoul, Korea; amount of grant $3,145.00.

Aug. 2006 School of Mathematics and Natural Sciences Travel Grant to attend and present research at the 1st Informal ACM SIGPLAN Workshop on Mechanizing Metatheory in Portland, OR; amount of grant $745.00.

Apr. 2006 Berry College Faculty Development Grant to attend summer workshop, "Python First: A Lab-Based Digital Introduction to Computer Science" at Chapman University, Orange, CA; amount of grant $1,150.00.

Feb. 2006 Berry College Summer Course Development Grant to develop Net-centric Computing course; amount of grant $1,000.00.

Feb. 2005 School of Mathematics and Natural Sciences Travel Grant to attend and present research at the 43rd ACM Southeast Conference in Kennesaw, GA; amount of grant $251.00.

PROFESSIONAL ACTIVITIES

Journal reviewer:

LNCS Transactions on Computational Science (2010)
IEEE Transactions on Systems, Man, and Cybernetics (2009),
APPSEM'04 *Theoretical Computer Science*, Special Issue, (2004).

External conference reviewer:
SIGCSE (2007-2017),
CCSC (2006- 2017),
ITiCSE (2007, 2008),
CADE-20 (2005),
POPL (2005)
Session chair, ACMSE (2008, 2010)
Nifty Assignments co-chair, CCSC-SE (2013-2017)

PROFESSIONAL AFFILIATIONS

1997 – Association for Computing Machinery (ACM); SIGPLAN; SIGAPP; SIGCSE
2006–present Consortium for Computing Sciences in Colleges (CCSC)
2004-2006 IEEE Computer Society
1998-1999 SIAM student member (sponsored by UNH Mathematics dept.)

SCHOOL AND DEPARTMENTAL SERVICE ACTIVITIES

Academic Council (2008)
Berry Computing Club faculty advisor (2007–)
Budget Advisory Committee (2013-2015)
CIC Degree Qualifications Profile committee
Council on Student Scholarship (2009–2011)
Hertz Scholarship faculty sponsor (2008–)
Information Technology committee (2005-2007), chair (2011-2013), (2015-2017)
Interdisciplinary Studies committee (2009–)
Libraries committee (2008–2010)
MNS Development of Undergraduate Research (DUR) Grant committee (2013-)
MNS Promotion and Tenure committee (chair) (2014-2017)
Multicultural and International Student Programs Committee
National and International Scholarships and Fellowships committee (2010–)
Scheduling committee (chair) (2007)
Symposium on Student Scholarship presentation judge, moderator
Traffic violations committee (2007–2010), chair (2011-2013)
Multiple departmental and school faculty and dean search committees

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Mount Berry, GA, August 2017.