

Jason M. Grant, Ph.D.

Middlebury College
Computer Science Department
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EDUCATION

University of Notre Dame, Notre Dame, IN
Doctor of Philosophy, Computer Science and Engineering, 2018
Dissertation: *“Analysis of crowd behavior based on optical flow clustering: detection, classification, and clustering”*
Advisor: Dr. Patrick Flynn

University of Notre Dame, Notre Dame, IN
Master of Science, Computer Science and Engineering, 2013
Thesis: *“Hierarchical Clustering of Similarity Scores in the Face Space”*
Advisor: Dr. Patrick Flynn

University of Maryland, Baltimore County, Baltimore, MD
Bachelor of Science, Computer Engineering, 2010

PROFESSIONAL EXPERIENCE

Middlebury College, July 2017 – Present
Assistant Professor of Computer Science, July 2018 - Present
Instructor of Computer Science, July 2017 - June 2018

University of Notre Dame, August 2010 – May 2018
Instructor, First-Year Engineering, August 2013 – May 2014
Graduate Research Assistant, August 2010 – May 2018
Recruiter, The Graduate School, August 2014 – May 2017

Intel Corporation, May 2013 – August 2013
Software Developer, Intel Collaborators (Hillsboro, OR)

Morgan State University, February 2010 – July 2010
Student Technician, Office of Information Technology

AWARDS AND HONORS

2015 Ford Dissertation Fellowship Alternate, The National Academies
2015 Outstanding Student Service Award, Computer Science and Engineering, Notre Dame
2015 McCloskey Business Plan Competition Semi-Finalist, University of Notre Dame
2013 GAANN Teaching Fellowship, Computer Science and Engineering, Univ. of Notre Dame
2011 Extreme Science and Engineering Discovery Environment Scholar
2010 Deans' Fellowship, University of Notre Dame Graduate School
2009 NSA Scholar, University of Maryland, Baltimore County
2005 Meyerhoff Scholarship, University of Maryland, Baltimore County

INTERNAL/EXTERNAL FUNDING

2016 Travel Grant, IEEE Conf. on Computer Vision and Pattern Recognition, Google.
2016 Travel Grant, National Society of Blacks in Computing, Institute for African-American Mentoring in Computing Sciences (iAAMCS).
2016 Travel Grant, Tapia Diversity in Computing Conference. Also awarded in 2013, 2011.
2012 Travel Grant, CMD-IT Student Professional Development Workshop, Center for Minorities and People with Disabilities in Information Technology (CMD-IT).

PUBLICATIONS

Grant, Jason M., and Patrick J. Flynn. “Optical flow for abnormal behavior detection and scene clustering” *ACM Transactions on Multimedia Computing, Communications, and Applications (TOMM)* (in review).

Grant, Jason M., and Patrick J. Flynn. “Crowd scene understanding from video: a survey.” *ACM Transactions on Multimedia Computing, Communications, and Applications (TOMM)* 13, no. 2 (2017): 19.

Grant, Jason M., and Patrick Flynn. “Hierarchical Clustering in Face Similarity Score Space.” arXiv preprint arXiv:1605.06052, May 2016.

Paone, J.R.; Flynn, P.J.; Philips, P.J.; Bowyer, K.W.; Bruegge, R.W.V.; Grother, P.J.; Quinn, G.W.; Pruitt, M.T.; **Grant, J.M.**, “Double Trouble: Differentiating Identical Twins by Face Recognition,” *Information Forensics and Security, IEEE Transactions on*, vol.9, no.2, pp.285-295, Feb. 2014.

Pruitt, M.T.; **Grant, J.M.**; Paone, J.R.; Flynn, P.J.; Bruegge, R.W.V., “Facial recognition of identical twins,” In *Proceedings of the 2011 International Joint Conference on Biometrics (IJCB)*, pp.1–8, Oct. 2011.

PRESENTATIONS

“Crowd Behavior Analysis using Optical Flow Clustering.” ACM Richard Tapia Celebration of Diversity in Computing Conference (Doctoral Consortium). Sep. 2016.

“Challenges of Face Recognition in Still and Motion Pictures.” National Society of Black Engineers National Conference, St. Louis, MO. March 2011.

INVITED TALKS

“Crowd Behavior Analysis using Optical Flow Clustering,” University of Florida, Department of Computer and Information Sciences and Engineering, October 25, 2016.

“Crowd Scene Understanding using Computer Vision,” XSEDE Scholars Webinar, May 5, 2016.

LEADERSHIP AND SERVICE

Student Volunteers, Students@SC, Supercomputing Conference. Program committee, 2015 – 2017, Application reviewer 2015 – 2018.

Toast Like a Champion Today, Toastmasters Club Advisor. Provide mentoring for a new Toastmasters club on campus by giving feedback to the club’s leadership board and mentors and by filling in vacant positions to ensure meetings run smoothly. 2016 – Present.

Black Graduate Student Association, President Reinstated the BGSA at Notre Dame to provide cultural, professional, and community service activities for minority graduate students, 2016.

Northern Indiana Regional Science & Engineering Fair Judge, Univ. of Notre Dame. Feb. 2016

Jobs for America’s Graduates (JAG) Career Development Conference Judge, WorkOne, Northern Indiana. Jan. 2016/2017/2018.

Graduate Student Board, University of Notre Dame Department of Computer Science and Engineering. Liaison between students and the Director of Graduate Studies. Assisted in welcoming prospective students and newly enrolled graduate students, 2013 – 2014.

COURSES TAUGHT

Introduction to Computing (Fa.18, Sp.18)
Biometrics (Fa.17)
Senior Seminar (Sp.18, Fa.17)
Music and the Black Church (Fa.18), first-year seminar

PROFESSIONAL DEVELOPMENT

Teaching Well Using Technology Certificate, Kaneb Center for Teaching and Learning, University of Notre Dame, May 2016.

Striving for Excellence in Teaching Certificate, Kaneb Center for Teaching and Learning, University of Notre Dame, May 2014.

TECHNICAL SKILLS

Programming

Proficient: C, C++, OpenCV
Intermediate: Python, MATLAB, R, Linux
Basic: LabVIEW, HTML, CSS

Research Areas

Computer vision, crowd analysis, pattern recognition, biometrics, face recognition

PROFESSIONAL AFFILIATIONS

Institute of Electrical and Electronics Engineers
Association for Computing Machinery
National Society of Black Engineers