# Matthew William Flagg

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## EDUCATIONAL BACKGROUND

| Degree | Year | University | Field |
|---|---|---|---|
| Ph.D. (in progress) | 2010 | Georgia Institute of Technnnology<br>Atlanta, GA, USA | Computer Science |
| M.S. | 2003 | Georgia Institute of Technology<br>Atlanta, GA, USA | Computer Science |
| B.S. | 2002 | Georgia Institute of Technology<br>Atlanta, GA, USA | Computer Science |

## EMPLOYMENT HISTORY

| Title | Organization | Years |
|---|---|---|
| Graduate Research Assistant | College of Computing<br>Georgia Institute of Technnnology<br>Atlanta, GA | 2004-present |
| Chief Technology Officer | PlayMotion, Inc.<br>Atlanta, GA | 2003-2008 |
| Research and Development Intern | Industrial Light and Magic<br>LucasFilm LTD.<br>San Francisco, CA | Summer 2006 |
| Market Research Analyst | Ulrich Research Services, Inc.<br>Orange Park, FL | Summer 2001 |
| Software Engineer | Neurostar Solutions, Inc.<br>Atlanta, GA | Fall 1999-<br>Spring 2000 |
| Software Engineer | Brightstreet, Inc.<br>Cupertino, CA | Summer 2000 |
| Web Developer | Ramworks<br>Jacksonville, FL | Summers<br>1996-1999 |

## CURRENT FIELDS OF INTEREST

Computer Vision, Computer Graphics, Human-computer Interaction, Parallel Computing

**Goals:**

My research focuses on analyzing and synthesizing video in real-time for computer-assisted oil painting, shadow elimination and occluder light suppression in front-projected displays and video-based animation of humans. I am interested in computer systems which can interact naturally with people with little to no input devices such as mice and keyboards.

# I. RESEARCH AND CREATIVE SCHOLARSHIP

## A. Journal Papers

A.0.1. J. Summet, M. Flagg, T.J Cham, J.M. Rehg, and R. Sukthankar. Shadow elimination and blinding light suppression for interactive projected displays. *Transactions on Visualization and Computer Graphics*, Volume 13, Number 3, May/June 2007

## B. Conference and Workshop Publications

### B.1. Refereed Conference Publications

B.0.1. M. Flagg, A. Nakazawa, Q. Zhang, S.B. Kang, Y.K. Ryu, I. Essa and J.M. Rehg. Human video textures. In *Symposium on Interactive 3D Graphics and Games (I3D)*, Boston, MA, February 2009.

B.0.2. M. Flagg and J.M. Rehg. Projector-guided painting. In *Proceedings of Conference on User Interface Software Technology (UIST)*, Montreux, Switzerland, October 2006.

B.0.3. J. Summet, M. Flagg, J.M. Rehg, and G. Abowd. GVU-PROCAMS: enabling novel projected interfaces. ACM Multimedia, Santa Barbara, CA, October 2006.

B.0.4. M. Ashdown, M. Flagg, R. Sukthankar, J.M. Rehg. A flexible projector-camera system for multi-planar displays. In *Proceedings of Conference on Computer Vision and Pattern Recognition (CVPR)*, Washington, D.C., June 2004.

B.0.5. J. M. Rehg, M. Flagg, T.-J. Cham, R. Sukthankar, and G. Sukthankar. Projected light displays using visual feedback. In *Proceedings of International Conference on Control, Automation, Robotics, and Vision*, Singapore, December, 2002.

### B.2. Refereed Workshop Publications

B.2.1. M. Flagg, C. Skeels, and J.M. Rehg. Computational Support for Creativity via Capture and Access. In Proceedings of *Workshop on Computational Support for Creativity* held in conjunction with *ACM CHI,* Boston, MA, April, 2009.

B.2.2. M. Flagg, J. Summet, and J.M. Rehg. Improving the speed of virtual rear projection: a GPU-centric approach. In Proceedings of *IEEE International Workshop on Projector-Camera Systems (PROCAMS)* held in conjunction with the *International Conference on Computer Vision and Pattern Recognition (CVPR),* San Diego, CA, June, 2005.

B.2.3. J. Summet, M. Flagg, M. Ashdown, R. Sukthankar, J.M. Rehg, G. Abowd, TJ. Cham. Robust projected displays for ubiquitous computing. In *Proceedings of Ubicomp Workshop on Ubiquitous Display Environments*, September, 2004.

B.2.4. J. Summet, M. Flagg, J.M. Rehg, G.M. Corso, and G. Abowd. Increasing the usability of virtual rear projection. In *Proceedings of Ubicomp Workshop on Ubiquitous Display Environments*, September, 2004.

## C. Other

### C.1. Technical Reports

C.1.1. J. Summet, M. Flagg, TJ. Cham, J.M. Rehg, and R. Sukthankar. Shadow elimination and blinding light suppression for interactive projected displays. Technical Report GIT-GVU-06-02.

C.1.2. M. Flagg and J.M. Rehg. Oil painting assistance using projected light: bridging the gap between digital and physical Art. Technical Report GIT-GVU-05-35.

# III. SERVICE

## A. Professional Activities

### A.1. Memberships and Activities in Professional Societies

- Student Member, Institute of Electrical and Electronics Engineers (IEEE).
- Student Member, Association for Computer Machinery.

### A.2. Conference Committee Activities

1. Organizing Committee, *International Conference on Computer Vision and Pattern Recognition*, Miami, FL, June 2009.

# IV. NATIONAL AND INTERNATIONAL PROFESSIONAL RECOGNITION

## A. Editorial and Reviewer Work for Technical Journals and Publishers

1. Reviewer for conferences: ACM Conference on User Interface Software Technology, Asian Conference on Computer Vision, ACM SIGGRAPH, International Conference on Intelligent Technologies for Interactive Entertainment (INTETAIN).

# V. PERSONAL DATA

Born: 12 February 1980, Lancaster, Pennsylvania
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