

# SASA JUNUZOVIC

## Computer Science Ph.D. (May 2010)

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## EDUCATION

University of North Carolina at Chapel Hill – Ph.D. in Computer Science, May 2010

University of North Carolina at Chapel Hill – M.S. in Computer Science, May 2006

University of Waterloo – B.S. of Mathematics (Honors Coop Computer Science), May 2004

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## POST DOC RESEARCH

(Aug 2010 – Aug 2012)

Design, develop, and study next-generation videoconferencing systems. (Manager: Kori Inkpen)

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## DISSERTATION RESEARCH

(Aug 2004 – May 2010)

Dissertation Title: Towards Self-Optimizing Frameworks for Collaborative Systems (Advisor: Prasan Dewan)

Focused on improving performance aspects of collaborative systems by creating an analytical model for them and applying it in a new collaborative framework that self-optimizes application performance.

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## INDUSTRY RESEARCH INTERNSHIPS

(4 internships; 2005-2009)

Designed, implemented, and evaluated new user-interfaces for collaborative applications, including multi-user editors, videoconferencing applications, and meeting replay systems.

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## APPLICATION DEVELOPER INTERNSHIPS

(7 internships; 2000-2004)

Designed, implemented, evaluated, and deployed applications in software (Microsoft), financial (TSX Group), medical imaging (Mitra Imaging Inc), and engineering (McLean Engineering and Marketing Co.) industries.

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## FELLOWSHIPS AND HONORS

- Microsoft Research Fellow. 2008-2010.
  - NSERC PGS D Scholarship. 2008-2010.
  - Fellows for Tomorrow Scholar. 2004-2005.
  - B.S. Dean's List Graduate. 2004.
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## PATENTS

- Junuzovic, S., Blank, T., Clearly, B., Gupta, A., and Wilson, A. Title TBA. Interactive and Shared Surfaces. *In Submission*.
  - Blank, T., Bathiche, S., Gupta, A., Wilson, A., and Junuzovic, S. Title TBA. Combined Projection, Lighting, and Image Capture Without Video Feedback. *In Submission*.
  - Inkpen, K., Hegde, R., Zhang, Z., Tang, J., Junuzovic, S., and Brooks, C. "Accelerated Instant Replay for Co-Present and Distributed Meetings." US Patent Application 20110267419. Nov 3, 2011.
  - Hegde, R., Zhang, Z., Chou, P., Zhang, C., Liu, Z., and Junuzovic, S. "Multi Device Capture and Spatial Browsing of Conferences." US Patent Application 20100085416. Apr 8, 2010.
  - Junuzovic, S., Hegde, R., He, L., Zhang, Z., and Drucker, S. "Persistent Collaborative Framework for Interactive Web Applications." US Patent 7624145. Nov 24, 2009.
  - Junuzovic, S., Dewan, P., and Rui, Y. "Virtual Shadow Awareness for Multi-user Editors." US Patent 7774703. Aug 10, 2010.
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## ACADEMIC PUBLICATIONS

### Conference Proceedings

- Junuzovic, S., Inkpen, K., Tang, J., Sedlins, M., and Fisher, K. "To See or not to See: A Study Comparing Four-Way Avatar, Video, and Audio Conferencing for Work." ACM GROUP 2012. *In Print*.
- Junuzovic, S., Inkpen, K., Blank, T., and Gupta, A. "IllumiShare: Sharing Any Surface." ACM CHI 2012. (Acceptance Ratio: 0.23).
- Junuzovic, S. and Dewan, P. "Towards Self-Optimizing Collaborative Systems." ACM CSCW 2012. *In Print*. (Acceptance ratio: ~0.40).
- Junuzovic, S., Inkpen, K., Hegde, R., and Zhang, Z. "Towards Ideal Window Layouts in Gaze-Aware, Multi-Party Desktop Videoconferencing." GI 2011. (Acceptance ratio: 0.32).
- Junuzovic, S., Inkpen, K., Hegde, R., Zhang, Z., Tang, J., and Brooks, C. "What did I Miss? In-Meeting Review Using Multimodal Accelerated Instant Replay (AIR) Conferencing." ACM CHI 2011. (Acceptance ratio: 0.26)
- Junuzovic, S. and Dewan, P. "Scheduling in Variable-Core Collaborative Systems." ACM CSCW 2011. **Best Paper Nominee**. (Acceptance ratio: 0.22)
- Junuzovic, S. and Dewan, P. "Lazy Scheduling of Processing and Transmission Tasks in Collaborative Systems." ACM GROUP 2009. (Acceptance ratio: 0.36)
- Junuzovic, S. and Dewan, P. "Serial vs. Concurrent Scheduling of Transmission and Processing Tasks in Collaborative Systems." CollaborateCom 2008. (Acceptance ratio: 0.37)
- Junuzovic, S., Hegde, R., Zhang, Z., Chou, P., Liu, Z., and Zhang, C. "Requirements and Recommendations for an Enhanced Meeting Viewing Experience." ACM Multimedia (MM) 2008. (Acceptance Ratio: 0.17)
- Junuzovic, S. and Dewan, P. "Multicasting in Groupware?" IEEE CollaborateCom 2007.
- Junuzovic, S., Rui, Y., and Dewan, P. "Read, Write, and Navigation Awareness in Realistic Multi-view Collaborations." IEEE CollaborateCom 2007.
- Dewan, P., Junuzovic, S., and Sampathkumar, G. "The Symbiotic Relationship between the Virtual Computing Lab and Collaboration Technology." ICVCI 2007.
- Junuzovic, S. and Dewan, P. "Response Times in Centralized, Replicated, and Proximity-Based Hybrid Collaboration Architectures." ACM CSCW 2006. (Acceptance ratio: 0.22)
- Junuzovic, S., G. Chung, and Dewan, P. "Formally Analyzing Two-User Centralized and Replicated Architectures." ECSCW 2005. (Acceptance ratio: 0.19)

### Posters

- Inkpen, K., Hegde, R., Junuzovic, S., Brooks, C., Tang, J., and Zhang, Z. "AIR Conferencing: Accelerated Instant Replay for In-meeting Multimodal Review." ACM Multimedia (MM) 2010. Poster. (Acceptance ratio: 0.30)

### Demos

- Junuzovic, S., Inkpen, K., Blank, T., and Gupta, A. "IllumiShare: Sharing Any Surface." Interactivity at ACM CHI 2012.
- Hegde, R., Han, J., Shi, S., Inkpen, K., Junuzovic, S., Roseway, A., Tang, J., Zhang, Z. "AIRMobile: Accelerated Instant Replay for In-meeting Review by Mobile Users." ACM CSCW 2011.

### Tutorials

- Dewan, P. and Junuzovic, S. "Hands-on Introduction to Synchronous Groupware." ACM CSCW 2006.

### Workshops

- Tang, J., Inkpen, K., and Junuzovic, S. "Using Video to Create Shared Experiences for Families." Technology in Families Workshop at ACM CHI 2012. *In Print*.

## TEACHING

- Instructor. "Intro to Programming – Comp 110." University of North Carolina at Chapel Hill. Fall 2007.
  - Website: <http://www.cs.unc.edu/~sasa/teaching/fall2007/comp110/>

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## ACADEMIC COMMUNITY

- Video Track Co-Chair – CSCW 2013
  - Program Committee Member – GROUP 2012
  - Computing Co-Chair – CSCW 2010
  - Program Committee Member – CRIWG 2011
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## WORK EXPERIENCE

### Post Doc: Microsoft Research, Connect Group

- **Aug 2010 – Aug 2012:** Design, develop, and study next-generation videoconferencing systems.
  - Manager: Kori Inkpen

### Intern: Microsoft Research, VIBE Group

- **May – Aug 2008:** Investigated user preferences for window layouts in telepresence applications. Ran user study and found that users prefer certain layouts. Proposed several layout guidelines based on study results.
  - Manager: Kori Inkpen

### Intern: Microsoft Research, CCS Group

- **May – Aug 2007:** Designed a new meeting replay system that conveys awareness information through a new interface that preserves spatial relationship of participants.
  - Manager: Zhengyou Zhang
- **May – Aug 2006:** Implemented a persistent collaboration framework for interactive web applications. Demonstrated its flexibility in variety of applications, such as multi-user text editors and multi-player games.
  - Manager: Zhengyou Zhang
- **May – Aug 2005:** Designed and implemented new awareness mechanisms for synchronous multi-user editors. Performed user study and found benefits of mechanisms in realistic scenarios, such as brainstorming.
  - Manager: Yong Rui

### Application Developer Internships (7 in total for 2+ years of development experience)

- (Microsoft Corp. (2); TSX Group (2); Mitra Imaging Inc (2); McLean Engineering and Marketing Co.(1))

### Additional Details Available At:

- <http://www.cs.unc.edu/~sasa/WorkExperience.html>

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## TECHNICAL SKILLS

- Programming Languages: Extensive C# and Java; Experienced C++ and C
- Experience: Networking and Distributed Systems
- Experience: Telepresence and Collaborative Frameworks and Applications
- Expertise: System Design, Development, Evaluation, and Deployment

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## REFERENCES

- Available upon request.
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