

Grants & Awards

- **NSF SBIR Phase 1 (2009)**
An SBIR (Small Business Innovative Research) grant awarded to Techoshark, inc., entitled SBIR Phase I: Improving Business-Consumer Commerce Via Mobile Social Networking Services
- **NSF GK-12 Fellowship (2008-2010)**
Integrating sensor technology into STEM curriculum and teaching with it in the Boulder Valley School District
- **Ford Motor Research Grant (2005)**
Implement theoretical ad-hoc routing protocols for vehicular networks and test performance in the real-world with Professors Robert Dick and Fabian Bustamante
- **Motorola Research Grant (2005)**
Evaluate ad-hoc wireless routing protocols for indoor extension of cellular coverage with Professor Robert Dick
- **Undergraduate Research Grants (2004,2005)**
Awarded twice at Northwestern University for summer research, once to develop a distributed intrusion detection and alert system with Professor Yan Chen and a second to develop a self-organizing protocols for vehicular wireless networks with Professors Robert Dick

Patent Disclosures

- U.S. Patent Provisional Patent No. 61/163,967, Entitled: SOCIAL NETWORKING PLATFORM; In the Name of TechoShark, Inc., March 27, 2009.
- U.S. Patent Provisional Patent No. 61/221,866, Entitled: CONTEXT-AWARE MOBILE SOCIAL NETWORKING; June 30, 2009.

Professional Service

- On Program Committee for CIOT Workshop at Pervasive 2010 “What can the Internet Of Things do for the Citizen”
- Reviewer for: Pervasive 2010, CHI 2010, WoWMoM 2010, Pervasive Health 2010, SenSys 2007

Relevant Coursework: Northwestern University (ECE/CS) & University of Colorado (CSCI)

CSCI 7143 Mobile Computing	CSCI 7143 Wireless Sensor Networks
CSCI 5551 Parallel Processing	CSCI 6454 Advanced Algorithms
CSCI 5312 Medical Informatics	CSCI 5753 Computer Performance Modeling
CSCI 5828 Software Engineering	CSCI 5444 Theory of Computing
ECE 590 Adaptive Embedded Operating Systems	CS 443 Advanced Operating Systems
CS 395 Algorithmic Techniques for Bioinformatics	CS 395 Resource Virtualization
ECE 397 Real-Time Operating Systems	CS 395 Content Management
CS 395 Research Seminar in Network Security	CS 345 Distributed Systems

Recent Publications

- [1] A. Beach, M. Gartrell, and R. Han, “Social-k: Real-time k-anonymity guarantees for social network applications,” in *IEEE International Workshop on SECURITY and SOCIAL Networking (SESOC) at PerCom 2010*, to appear, 2010.
- [2] A. Beach, M. Gartrell, X. Xing, R. Han, Q. Lv, S. Mishra, and K. Seada, “Fusing mobile, sensor, and social data to fully enable context-aware computing,” in *The Eleventh Workshop on Mobile Computing, Systems, and Applications (ACM HOTMOBILE) 2010*, to appear, 2010.
- [3] A. Beach, M. Gartrell, and R. Han, “Solutions to security and privacy issues in mobile social networking,” in *International Conference on Computational Science and Engineering, 2009 (Workshop on the Social Mobile Web 2009, associated with IEEE SocialCom 2009)*, cse., vol. 4, 2009, pp. 1036–1042.
- [4] A. Beach, B. Ray, and L. Buechley, “Touch me wear: Getting physical with social networks,” in *CSE '09: Proceedings of the 2009 International Conference on Computational Science and Engineering (Workshop on Social Computing with Mobile Phones and Sensors: Modeling, Sensing and Sharing 2009, associated with SocialCom 2009)*, vol. 4. Washington, DC, USA: IEEE Computer Society, 2009, pp. 960–965.
- [5] A. Beach, M. Gartrell, S. Akkala, J. Elston, J. Kelley, K. Nishimoto, B. Ray, S. Razgulin, K. Sundaresan, B. Surendar, M. Terada, and R. Han, “Whozthat? evolving an ecosystem for context-aware mobile social networks,” *IEEE Network*, vol. 22, no. 4, pp. 50–55, July-August 2008.
- [6] C. Gruenwald, A. Hustvedt, A. Beach, and R. Han, “Swarms: A sensornet wide area remote management system,” in *IEEE/Create-Net 3rd International Conference on Testbeds and Research Infrastructures for the Development of Networks and Communities (TridentCom)*, 2007, pp. 1–10.
- [7] Z. Li, Y. Chen, and A. Beach, “Towards scalable and robust distributed intrusion alert fusion with good load balancing,” in *LSAD '06: Proceedings of the 2006 SIGCOMM workshop on Large-scale attack defense*. New York, NY, USA: ACM, 2006, pp. 115–122.