

Education **PhD Candidate** **Electrical Engineering, Stanford Univ**
Advisor: Prof. Bernd Girod
GPA: 3.97/4.00 **2006-present**
 Research interests in the area of computer vision, machine learning, and wireless networks. Coursework includes Image Communications, Digital Communications, Statistical Signal Processing, Machine Learning, Computer Vision, Convex Optimization, Computational Photography

Master of Science **Electrical Engineering, Carnegie Mellon Univ**
GPA: 3.97/4.00 **2004-2005**
 Coursework includes Distributed Systems, Digital Signal Processing, Embedded Systems, Wireless Communications, Wireless Networks, Algorithms in DSP.

Bachelor of Science **Electrical Engineering, Carnegie Mellon Univ**
GPA: 4.00/4.00 **2002-2005**
 Minor: Economics, Graduated with University and College Honors

Selected Publications **Stanford University, 2006-present**

Vijay Chandrasekhar, Gabriel Takacs, B. Girod, et. al, "Transform Coding of Feature Descriptors", *Submitted to VCIP 2009*.

D. Chen, S. Tsai, Vijay Chandrasekhar, G. Takacs, J.Singh, B.Girod, "Robust image retrieval using multi-view scalable vocabulary trees", *Submitted to VCIP 2009*.

Gabriel Takacs, Vijay Chandrasekhar, B.Girod et. al, "Outdoors Augmented Reality on Mobile Phone using Loxel based Visual Feature Organization", *Accepted to ACM Multimedia Information Retrieval (MIR)*, Vancouver, Canada, October 2008.

D. Chen, V. Chandrasekhar, G. Takacs, J. Singh, and B.Girod, "Color restoration for objects of interest using robust image features", *IEEE International Workshop on Multimedia Signal Processing (MMSP)*, Queensland, Australia, Oct. 2008.

Vijay Chandrasekhar, Gabriel Takacs, B.Girod, R.Grzeszczuk, "Feature Tracking for Mobile Augmented Reality using Video Coder Motion Vectors", *Proceedings of the Sixth IEEE and ACM International Symposium on Mixed and Augmented Reality (ISMAR 07)*, Nara, Japan, November 13-16 2007.

Institute of Infocomm Research, 2005-06

Vijay Chandrasekhar, Winston KG Seah, Zhi Ang Eu, Venkatesh Pillai, "Efficient Area Localization Scheme for Wireless Sensor Networks", *Submitted to ACM Wireless Netowrks Journal*.

Vijay Chandrasekhar, Zhi Ang Eu, Winston KG Seah, Venkatesh Pillai, "Experimental Analysis of Area Localization Scheme for Sensor Networks", *Proceedings of IEEE Wireless Communications and Networking Conference (WCNC)*, Hong Kong, March 11-15, 2007.

Vijay Chandrasekhar, Winston KG Seah, Yoo Sang Choo, How Voon Ee, "Localization in Underwater Sensor Networks: Survey and challenges", *Proceedings of the ACM Workshop on Underwater Networks (WUWNETS)*, ACM MobiCom, Los Angeles, CA, Sep 25-29, 2006.

Jeffrey HS Tay, Vijay Chandrasekhar and Winston KG Seah, "Range-free Localization Using Dynamic Hop Size Computation in Wireless Sensor Networks", *Proceedings of the IEEE Conference on Industrial Informatics (INDIN)*, Singapore, August 16-18, 2006.

Jeffrey HS Tay, Vijay Chandrasekhar and Winston KG Seah, "Selective Iterative Multilateration for Hop Count-Based Localization in Wireless Sensor Networks", *Proceedings of the Workshop on Mobile Location-Aware Sensor Networks (MDM)*, Nara, Japan, May 9-13, 2006.

Vijay Chandrasekhar, Winston KG Seah, "Area Localization Scheme for Sensor Networks", *Proceedings of IEEE OCEANS Asia Pacific Conference*, Singapore, May 16-19, 2006.

**Work
Experience**

Research Intern **Nokia Research Center, Palo Alto**
Advisor: Radek Grzeszczuk **June 2006-Sep 2006**
Developed client and server side algorithms on the Nokia N95 platform for a powerful Mobile Augmented Reality application.

Research Engineer **Institute for Infocomm Research, Singapore**
Advisor: Winston KG Seah **July 2005-July 2006**
Research Engineer in the networking department at I2R. Involved in the design of an efficient and robust under water sensor network. Tackled networking and application layer issues like topology management, real time tracking, localization, reliable data delivery and data routing. Developed efficient algorithms for localization in terrestrial and underwater sensor networks.

Research Assistant **Carnegie Mellon Univ**
Advisor: Rohit Negi **Summer 2004**
Designed and implemented a software defined radio using Maxim 2410 RF receiver, AD6644 A/D converter, AD6620 digital down converter and TMS320C6701 DSP. Implemented base band signal processing algorithms for correcting carrier frequency offset, frame synchronization, filtering and modulation/demodulation on the DSP.

Awards

Carnegie Institute of Technology Dean's List for meritorious academic performance; 2002-05
Singapore Physics Olympiad, Merit Award, Top 25 students in Singapore; Jan 2001.
A*STAR (Agency for Science, Technology and Research) NSS (National Science Scholarship); 2002
SIA (Singapore Airlines) Youth Scholarship-scholarship for two years of junior college studies in Singapore; 2000
National Talent Scholarship. Awarded at the national level in India, 1999