

Ravi Shenoy

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- Visa Status: F1

Objective	To obtain a challenging full time job as wireless system design / DSP / RF Engineer																		
Education	<ul style="list-style-type: none"> • (M.S.) Master of Science, Electrical Engineering Expected – August 2003 Major: Wireless communications Minor: RF Design / Networking Virginia Tech., Blacksburg, Virginia-24060 GPA - 3.97 / 4.0 • (B.E.) Bachelor of Engineering, Electronics, June 2001 Sardar Patel College of Engineering, Bombay University, India Top 5 % of the class 																		
Work Experience	<ul style="list-style-type: none"> • Graduate Research Assistant, Configurable Computing Laboratory (CCM), Virginia Tech.(Aug, 2002 – Present) <ul style="list-style-type: none"> • Simulations to separate spatially independent sources from delayed, convolved and superimposed mixtures using “Blind source separation using Independent Component analysis”. • Implementation of “Acoustic Beam forming” on ADSP 2189 for a Large scale sensor network • Emulation of a sensor network using Ptolemy and C. • Part time work at Chemical Engineering Department, Virginia Tech, Summer 2002. <ul style="list-style-type: none"> • Interfacing and Programming of measuring instruments and controllers • Summer Internship, S.A.M.E.E.R, IIT Bombay, India (June, 2000 – May, 2001) <ul style="list-style-type: none"> • Implemented Assembly level software (8051) for Automating of lighthouses. 																		
Skill set	<table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">Computer languages</td> <td>C, C++, Visual Basic</td> </tr> <tr> <td>Assembly Programming</td> <td>8085, 8051, TMS320C6701</td> </tr> <tr> <td>Platforms (OS)</td> <td>Windows 95/98/2000, LINUX</td> </tr> <tr> <td>Tools</td> <td>MATLAB, OPNET 9.0, ADS, CCS-2, Cadence</td> </tr> <tr> <td>IC Process</td> <td>Motorola's HIP6W 0.18 um Silicon Germanium BiCMOS</td> </tr> <tr> <td>DSP</td> <td>TMS320C6701, ADSP-218x</td> </tr> <tr> <td>Processors</td> <td>8051, 8085</td> </tr> <tr> <td>Wireless Air Interface Standard</td> <td>IEEE 802.11, IS-95, GSM, WCDMA, UMTS</td> </tr> <tr> <td>Other Skills</td> <td>Microsoft Office Suite 2000</td> </tr> </table>	Computer languages	C, C++, Visual Basic	Assembly Programming	8085, 8051, TMS320C6701	Platforms (OS)	Windows 95/98/2000, LINUX	Tools	MATLAB, OPNET 9.0, ADS, CCS-2, Cadence	IC Process	Motorola's HIP6W 0.18 um Silicon Germanium BiCMOS	DSP	TMS320C6701, ADSP-218x	Processors	8051, 8085	Wireless Air Interface Standard	IEEE 802.11, IS-95, GSM, WCDMA, UMTS	Other Skills	Microsoft Office Suite 2000
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Projects	<p>DSP Implementation of Communication Systems</p> <ul style="list-style-type: none"> - LMS and RLS equalizers - Rake receiver - Symbol Time recovery (Early-Late) - Test bed for OFDM transmitter & receiver - Fixed point IIR and FIR filters using circular buffering - Carrier recovery through Costas Loop <p>RF Design</p> <ul style="list-style-type: none"> • Design and full-custom layout of RF receiver front end (Motorola's HIP6W 0.18 um SiGeBiCMOS) • Designed, simulated and tested an input matching network for an amplifier (ADS) • Designed, simulated and tested a microwave balanced mixer based on Schottky-barrier diodes and a 180 ° (“rat-race”) hybrid coupler (ADS) <p>Digital Communications</p> <p>Performed MATLAB simulation for adaptive modulation techniques in OFDM. Also studied the impact of inter-carrier interference on bit error rate performance</p> <p>Wireless Communications</p> <p>Evaluating the throughput that packet switched EDGE - EGPRS can achieve in an interference limited cellular system</p> <p>Network Performance Analysis, Design and Management</p> <ul style="list-style-type: none"> • Emphasis on Data link (Ethernet, ATM, Token Ring, 802.11b), Network and TCP/IP layers • Queuing theory, graph theory, network management methods and protocol (SNMP) • Performance analysis of multiple access, TCP/IP and ATM protocols (OPNET) • Design of backbone & access networks and performance analysis of a given network topology • Comparison of traditional Poisson traffic model with "real-world" trace of self-similar traffic 																		

Graduate Courses	<ul style="list-style-type: none"> • Cellular Radio and Personal Communications • DSP and Filter Design • Computer Network Architecture • Network Performance analysis, Management and Design • CAD for communication systems • DSP Implementation in Communication Systems • Digital Communication • Stochastic Signals and Systems • RF and Microwave Engineering • Radio Frequency Integrated Circuits (RFIC)
Publications	<ul style="list-style-type: none"> • T. Martin, M. Jones, J. Edmison, and R. Shenoy, "<i>Towards a design framework for wearable electronic textiles</i>" Seventh International Symposium on Wearable Computers (ISWC 2003)(under review) • M. Jones, T. Martin, Z. Nakad, R. Shenoy, T. Sheikh, D. Lehn, and J. Edmison, "<i>Analyzing the Use of E-textiles to Improve Application Performance</i>," IEEE Vehicular Technology Conference 2003, Symposium on Wireless Ad hoc, Sensor, and Wearable Networks (VTC 2003)(under review)
Honors and Activities	<ul style="list-style-type: none"> • Recipient of “Tata Chemicals”, “Godrej”, “Ratan Tata” and “JRT” scholarships for higher education • Playing “Tabla” an Indian Percussion Instrument • Completed a course in Vedic Mathematics an ancient form of mathematics for quick computations • Tutoring undergraduate students at Career for Academic Enhancement and Enrichment, Jan-May 2002
References	<p>Available on request</p>
