Pujun Bhatnagar

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Objective	To secure an internship/full time job to enhance my technical & analytical skillset and contribute to the society.	
Education	**Georgia Institute of Technology, Atlanta, GA, USA** Graduating:	May 2015
	Bachelor of Science in Computer Engineering with minor in Computer Science	Aug'11 - Present
	Major Specific GPA: 3.96/4.0 Overall GPA: 3.89/4.0 Summa Cum Laude (Expected)	
Study	***Worcester College, Oxford University, UK***	May '13 - Aug'13
Abroad	***Georgia Tech Lorraine, Metz, France***	Jan'13 – May'13

Experience

Lead Undergraduate Teaching Assistant at Georgia Tech- Math Dept.   Aug'12 –Present
- Taught advance Calculus and Linear Algebra to 37 students in Fall'13 & Spring'14 twice a week
- Basic single&multi variable Calculus in 4 dimensions to 33 students in Fall'12 twice a week   Aug'12 –Dec'12
- Conducted, supervised and graded weekly quizzes, 3 mid-terms & final for 200 students   Aug'12 –Present

Software Engineering Intern on Core Engineering Team at Pandora Media   June'14 –Aug'14
- Worked on Pandora for Artist pillar; Using data mining, machine learning and web development, helped in improving Pandora's ads server and 'Tour Builder' program.

MATHLAB Assistant at Centre for Academic Success at Georgia Tech   Aug'12 –Dec'12
- Organized help sessions for Math & Physics. Performed 1-to-1 and group sessions for 7 students per week

Technical Intern at Larsen and Toubro and New Delhi Power Limited, India   May'12 –Aug'12
- Worked with senior engineers to simulate & analyze power grid system of North Delhi.
- Used data mining techniques in MATLAB, C++, to determine potential flaws in power stations and increased efficiency of the network by 40%

Research

Lead Undergraduate Research under Dr. James McClellan, ECE Dept. for 4 semesters   Jan'12- Present
- Improved Intelligent review using questions' cross-correlation, user stats and probability modeling   Dec'13 –May'14
- Redesigned the entire implementation increasing the effectiveness of system by 70%
- Developed Intelligent review using data mining for students, increasing participation by 30%   Aug'13 – Dec'13

Concepts Creation & Refinement Team at Georgia Tech   Aug'12 – Dec'12
- Redesigned question ranking system, increasing the online question search system efficiency by 53%
- Complete redesign and auto arrangement of concepts within the ITS system using 3 level integration
- Proposed Instructor Assignment Creation system and improved assignment efficiency by 29%   Jan'12 – May'12

Energy Security Team at Bharat Heavy Electricals Ltd, India   2010-2011
- Worked with senior engineers to evaluate the feasibility of large scale usage of hydraulic energy for electricity
- Reported 5 changes to Bhakra Dam authorities to improve energy security by 21%

Projects

Connected: A Spatial Augmented Reality Device using OpenCV C, C#, MATLAB   Jan'14 – May'14
- Made of kinect, processor & projector, device did real time gesture recognition using HMM & vector modeling
- It could scan the user interaction w/ environment, compute and display the results on any flat surface

Gameboy and Computer Game Agent Design with Artificial Intelligence in Python and C   Jan'12 - Present
- Designing Pacman agents using A*, Dynamic Bayes Nets to be best ghost hunters and pacman agents
- 3- D games using mode-III, IV algorithms, constraint based search for meeting memory & hardware constraints

Hand Writing and vehicle recognition using fully connected neural nets   May'14

ALTERA Robot Self-Test (1024 lines of Assembly code)   Jan'13 – May'13
- Automated test for robot's hardware to help instructor and TAs repair and maintenance hardware

"Minesweeper Game solver", N-cache simulator in C and Assembly (107 lines of Assembly code)   Aug'13- Sept'13

"Ninja Fight and Puzzle" game & "Paint Application with Animation" using Java   Nov'12-Dec'12

"Dynamic Pattern Recognition" on ARM Processor using C++   Oct'12

Physical Modeling & Simulation   Jan'12-May'12
- 3-D N-Celestial System, Spring Projection Modeling using VPython to study physical & celestial phenomenon

Skills

Programming Skills: C, C++, Java, MATLAB, MIPS Architecture and Python. Novice in Visual Basic
Web & Database Management: HTML, JavaScript, CSS, LAMP (Linux Apache MySQL PHP), Postgress
Operating Systems & Software: Shell, Bash, CMD Scripting, Linux, Macintosh, ARM & Quartus
Languages: English (Fluent), Hindi (Native) and Sanskrit (Advanced Level)

Leadership

Vice President – Technology, Enterprise to Empower (Student organization at Georgia Tech)   Aug'12 –Aug'13
'Director of Quiz' – Senior school cabinet   Apr'10 – Apr'11
- Conducted state level Science quiz with 30 participating schools and organized weekly meeting of teachers

Extra Curricular Activities

Helped visually impaired professor, Dr. Anil Khurana, Delhi University, with his Research Thesis
- Collected, analyzed data using Excel and SPSS and edited parts of his thesis
- Part time Science, Mathematics and Social Sciences teacher for visually impaired students
- Recorded NCERT books on CDs in English & Hindi; Volunteer for excursions

Areas of Interest

Data structure & algorithms analysis/optimizations, machine learning, NLP, computer vision, artificial intelligence, Embedded systems & control automation, digital logic design, any software development

Honors
- Faculty honors, Dean's List at Georgia Tech and seven year scholar, silver, gold, diamond medalist
- Active member of **IEEE & Eta Kappa Nu, Tau Beta Pi** ECE honors society at Georgia Tech
- Gold medalist at International Informatics, International Mathematics & Zonal Informatics Olympiad