Pujun Bhatnagar

336193 Georgia Tech Station || Atlanta, GA 30332-1665 || Mob. (678) 702-4576 || pujun@gatech.edu || Non-US Citizen (F-1 Visa)

Education	**Georgia Institute of Technology, Atlanta, GA, USA**	Graduating:	May 2015
	Bachelor of Science in Computer Engineering with minor in Computer Science (Artificial Intelligence)		Aug'11–Present
	Major Specific GPA: 3.97/4.0 Overall GPA: 3.9/4.0 Summa Cum Laude (Expected)		
Study Abroad	*Worcester College, Oxford University, UK*		May'13–Aug'13
	Travelled to UK &10 European countries learning 15-19th century Music, History & Art while taking 12 units of classes		
	Georgia Tech Lorraine, Metz, France		Jan'13–May'13
	Travelled 29 cities across 14 European countries exploring diverse scientific community while taking 15 units of core ECE		

Experience	**Head & Super Undergraduate Teaching Assistant for Math at Georgia Tech-Math Dept.**	Aug'12–Present
	• Taught Advance Calculus and Linear Algebra to 100 students via classroom & online recitations	Aug'14–Present
	• All recitations were recorded and published on McGraw Hill website	Aug'14–Present
	• As Head TA, responsible for other TAs, homework, quizzes & ensuring that course runs smoothly	Aug'14–Present
	• Taught Advance Calculus and Linear Algebra to 37 students in Fall'12, Fall'13 & Spring'14	Aug'12–May'14
	• Conducted, supervised and graded weekly quizzes, 3-5 midterms & final for 200 students	Aug'12–Present
	Undergraduate Teaching Assistant for Digital Design Lab at Georgia Tech-ECE Dept.	Aug'14–Present
	• Taught core principles of Digital Design to undergraduates & helped students complete weekly experiments	
	Full Stack Software Engineering Intern on Core Engineering Team at Pandora Media	June'14–Aug'14
	• Built 'Artist Tour Builder' web interface using Machine Learning, data mining. Commercialized as AMP.	
	MATHLAB Assistant at Centre for Academic Success at Georgia Tech	Aug'12–Dec'12
	• Organized tutoring sessions for Math & Physics. 1-to-1 and 7 students group sessions every 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	
	• Determined flaws in power stations using MATLAB, C++ simulations that increased grid efficiency by 20%	

Research	**Lead Undergraduate Research Assistant under Dr. James McClellan, ECE Dept.**	Jan'12–Present
	• Implemented Intelligent Review Model using Markov Chains, concepts' cross-correlation, user and class stats	Jan'14–Present
	• Redesigned concept transition matrix increasing ITS student weakness prediction by 70%	
	• Developed Intelligent Review mode using data mining, increasing student participation by 30%	Aug'13–Dec'13
	Concepts Creation & Refinement Team at Georgia Tech	Aug'12–Dec'12
	• Redesigned question ranking & tagging system using n-gram analysis, increasing search efficiency by 53%	
	• Worked on auto arrangement of concepts within ITS system using 3 level integration	
	• Proposed Instructor Assignment Creation system and improved assignment generation efficiency by 29%	Jan'12–May'12
	Undergraduate Research Assistant under Dr. Greg Mayer, Math Dept.	Aug'14–Present
	• Using statistical models to analyze online teaching interactions. Funded by Georgia Tech President's Office	
	Energy Security Team at Bharat Heavy Electricals Ltd, India	2010–2011
	• Reported 5 changes to Bhakra Dam authorities to improve energy security by 21%	

Projects	**GTNoir: Android AI story generator using Hierarchical Task Networks, Partial Order Planning**	Aug'14–Present
	Connectied: A Wearable Spatial Augmented Reality Device using OpenCV, C, C#, MATLAB	Jan'14–May'14
	• Made of kinect, processor & projector, it does real-time gesture recognition using Hidden Markov Models	
	• Controlled by only human gestures, it computes, searches internet & projects on any flat physical surface	
	Artificial Intelligent computer games agents using Python & C	Jan'12–May'14
	• Using A*, constraint based search, Dynamic Bayes Nets to design intelligent PAC-MAN agents	
	• Making 2D games using Gameboy mode III/ IV architecture, meeting memory & hardware constraints	
	Hand Writing & Vehicle Recognition using fully connected neural nets	May'14
	AmigoBot Robot Self-Test (1024 lines of Assembly code)	Jan'13–May'13
	• Automated self-test to help instructor and TAs repair and maintain robot's hardware	
	"Minesweeper Game solver" in Assembly (107 lines of Assembly code), N-cache simulator in C	Aug'13–Sept'13
	"Dynamic Pattern Recognition" on ARM Processor using C++	Oct'12
	Physical Modeling & Simulation using vPython	Jan'12–May'12
	• 3-D N-Celestial System, Spring Projection Modeling to study physical & celestial phenomenon	

Skills	**Programming Skills:** Java, Python, C, C++, MATLAB, Visual Basic, MIPS ISA
	Web & Database Management: Flask, JQuery, JavaScript, AJAX, CSS, LAMP, PostgresSQL, HTML
	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
	Co-Founder, Vice President and head of Linux Programing & Quizzing – XINO: High School Computer Club	Apr'10–Apr'11
	'Director of Quiz' – Senior school cabinet	Apr'10–Apr'11
	• Conducted state level Science quiz with 30 participating schools and organized weekly meetings	

Extra Curricular Activities	**Winners of 2014 Fishackathon Silicon Valley**	13Jun–15Jun'14
	Funded by US Department of State. Created best iOS and web interface to get real time fish freshness data. Won $1000	
	Helped visually impaired professor, Dr. Anil Khurana, Delhi University, with Research Thesis using SPSS	
	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	Machine Learning, Artificial Intelligence, Human Computer Interaction, Intelligent Robot and Story Planning, Computer Vision, Natural Language Processing, Neural Nets and Markov Chains, Advanced Data Structures, Algorithms Analysis & Optimizations, Digital Logic Design & Embedded Systems

Pujun Bhatnagar

Honors
- 4 times Faculty Honors. Every semester listed in Dean's List at Georgia Tech.
- Active member of **IEEE** & **Eta Kappa Nu, Tau Beta Pi** ECE honors society at Georgia Tech
- Gold medalist in International & Zonal Informatics, International Mathematics Olympiads Six year scholar, silver, gold medalist in high school