# Ajay Bhatia

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#### EDUCATION

## Punjab Technical University, Jalandhar INDIA

Pursuing Ph.D. Computer Science, September, 2012 (Pre-Thesis).

- Dissertation Topic: "Pattern Analysis of Physical Activity Data using Computational Approach"
- Advisor: Rajeshwar Singh, Ph.D., Campus Director, DKTGI, Shaheed Bhagat Singh Nagar, Punjab, INDIA

## University Grant Commission, New Delhi INDIA

National Eligibility Test for Junior Research Fellowship and Eligibility for Assistant Professor, December, 2012.

## The ICFAI University, Dehradun, Uttarakhand INDIA

Masters of Computer Applications, September, 2007

# Guru Nanak Dev University, Amritsar, Punjab INDIA

B.Sc.(Information Technology), May, 2004

Machine Learning (Coursera), Stanford University, USA, Fall Summers 2015

## Honors and Awards

Guest Speaker, Google Flutter, KCLIMIT, Jalandhar, 2019

Guest Speaker, Google Flutter, KMSCITM, Dasuya, 2019

Guest Speaker, Google Flutter, SGTBIMIT, Jalandhar, 2019

Guest Speaker, Web & Mobile Trends in 2019, IKGPTU, Hoshiarpur Campus, 2019

Guest Speaker, Google Cloud Platform, SGTBIMIT, Jalandhar, 2019

Best Contributor, Education & Admissions, RBGI, 2019, Guest Speaker, Google Cloud Platform, KCLIMIT, Jalandhar, 2018

Voter Awareness, Voter Carnival, District Adminstration, 2017

Best Motivator, District Administration & District Welfare, 2016

Technology Contributor, ERP System, CT Group, Jalandhar, 2009

B.Sc.(Information Technology) with Disctinction, 2004

Fourth Position earned in B.Sc., (Information Technology), 2004

First in College in University Examination, 2004

First in College Examinations, 2003

DAVCMC Scholarship, 2003

First in College Examinations, 2002

First in College Examinations, 2001

Professional Experience Google, INDIA Google Community Lead

September, 2019 - Present

Vaibhav Associates & Lets Play Coding, INDIA CTO

January, 2017 - Present

Google, INDIA Google Cloud Platform Facilitator

January, 2019 - August, 2019

Google, INDIA Machine Learning Crash Course Facilitator August, 2018 - December, 2018

Micromax Informatics Ltd., 90-B, Sector 18, Gurgaon 122015, INDIA Technical Consultant

June, 2016 - December, 2017

Consultation of various internals of development in Mobile and Web apps like http://download.yuplaygod.com and http://developer.yuplaygod.com

Tri Infotech, Punjab CEO

July, 2016 - January, 2018

Career Escorts, India CTO

July, 2017 - January, 2018

Thicket Labs LLC, 67 West Street Brooklyn, NY 11222 Senior Software Developer & Project Manager

May, 2014 - March 2016

Designed and Developed *The Possibilty Engine* - A comprehensive solution to manage human complexity

Freelancer (Software Project Management & Development) August, 2004 - Current

ACADEMIC EXPERIENCE Rayat Bahra Institute of Management, Hoshiarpur, Punjab INDIA

 $Head \ \& \ Associate \ Professor, \ Department \ of \ Computer \ Applications \ \ July, \ 2010$  - present Administration, Head of Department, Mentoring, Motivator, Technology Advisor, Teaching graduate and postgraduate courses in IT

CT Institute of Management & IT, Jalandhar, Punjab INDIA

Assistant Professor March, 2008 - July, 2010

Taught graduate and postgraduate courses in IT

RESEARCH INTERESTS Android Platform, Medical Informatics, Decision making, Mathematical modelling, Fuzzy systems, Optimization techniques, Linux Kernel tunning and optimization

Refereed Articles Singh, R., Singh, R., Bhatia, A. 2018. Sentiment analysis using machine learning techniques to predict outbreaks and epidemics, International Journal of Advanced Science and Research, 3(2), pp 19-24.

Bhatia, A., Singh, R. 2012. Using Bayesian Network as Decision making system tool for deciding treatment plan for Dental caries, Journal of Academic and Industrial Research, 2(2), pp 119-122.

Bhatia, A., Singh, R. 2012. Backpropagation Multilayer Feedforward Neural Network for deciding treatment for broken Tooth, Journal of Academic and Industrial Research, 2(2), pp 93-96.

Mago, V.K., Mago, A., Bhatia, A., Bhatia, N. 2012. Clinical Decision Support System for Dental Treatment, Journal of Computational Science, 3(5), pp 254-261, Elsevier.

Singh, R., Marwaha, H., Bhatia, A. 2012. The Projective Future of RFID in Indian Shopping Malls, International Journal of Science & Emerging Technologies with Latest Trends, 1(1), pp 70-73.

Bhatia, A., Singh, R., Mago, V.K. 2011. A Decision Making System for the Treatment of Fractured Tooth, Journal of Computer Science, 1(2), pp 1-3.

Mago, V.K., Devi, S., Bhatia, A., Mehta, R. 2010. *Using Probabilistic Neural Network to Select a Medical Specialist Agent*, Multi-Agent Systems for Healthcare Simulation and Modeling: Applications for System Improvement, USA. pp 164-177

Mago, V.K., Bhatia, A., Prasad, B., Mago, A. 2009. A Fuzzy Expert System for Decision Making in the Treatment of Broken Tooth, International Conference on Artificial Intelligence and Pattern Recognition. Florida, USA. pp 268-277

Mago, V.K., Devi, M.S., Bhatia, A., Mehta, R. 2009. *Using Probabilistic Neural Network for Selection of a Super Specialist Medical Agent*, Multi-Agent Systems for Health Care Simulation and Modeling. IGI Global, USA, pp 164-177.

Mago, V.K., Prasad, B., Bhatia, A., Mago, A. 2008. A Decision Making System for the Treatment of Dental Caries, Soft Computing Applications in Business, Studies in Fuzziness and Soft Computing. B. Prasad Eds., Springer-Verlag, Germany, pp 231-242.

### Conference Presentations

Bhatia, A., Kumar S., Mago, V. K. Gradient: A User-Centric Lightweight Smartphone Based Standalone Fall Detection System. 17th Portuguese Conference on Artificial Intelligence. EPIA Conference 2015. Sep., 2015. Proceedings in Springer, LNAI Series.

Bhatia, A.; Punjab Tech. Univ., Kapurthala, India; Mago, V.; Singh, R. Use of soft computing techniques in medical decision making: A survey. Advances in Computing, Communications and Informatics. ICACCI 2014.

Bhatia, A., Deep, G., Singh, R. 2012. Using Back Propagation Neural Network for Sales Forecasting based on Monthly Sales. ICUTIT 2012. PCTE, Ludhiana.

Bhatia, A., Deep, G., Maini, P. 2012. Cause Advertising-A Tool for Social Problems Eradications. IMCMC 2012. PCTE, Ludhiana.

Singh, R., Marwaha, H., Bhatia, A. 2012. The Projective Future of RFID in Indian Shopping Malls. HR Summit 2012. KCL Institute of Management & IT, Jalandhar.

Marwaha, H., Begowal, R., Bhatia, A. 2012. Woman: A Bread Baker and Bread Earner Using IT. RWITTT-2010. PCMSDCW, Jalandhar.

# Professional Activities

**Design & Develop** On This Day Available on Playstore. A history tracking app which shows various events happened on specific day ranging from births, deaths, anniverseries to all historical events. Typescript, Apollo Server, Apollo Client, web-scarping and React Native are used as main technologies.

**Develop** emotify https://www.goemotify.com/. Reaction and user engagement tool for online publishers, news websites and blogs, powered by AI. It is basically EMOTIONAL INTELLIGENCE FOR YOUR WEBSITE. The product is owned by Emotify. The new avatar is in development using various cutting edge technological stacks.

**Design & Develop** B-Buddy. A very simple mobile application to find donors around us using location proximity. The app is developed using Google Firebase and React Native.

**Design & Develop** CoachWiz Work in progress. A multiplatform video portal publishing videos on coaching of various sports by renowned coaches nationwide using GraphQL(Apollo), Meteor, React.js and React native.

**Design, Develop & Lead** ADMS. An e-commerce platform to sell medicinal drugs developing in Meteor Platform as backend and React/Redux as frontend.

**Design & Develop** Araman https://aramancompany.in/. A website for Araman Company which produces agricultural machineries and have client-base worldwide.

**Design & Develop** New Wave Immigration *http://newwaveimmigration.com/*. A website for visa immigration services working for student and professional based immigrations throughout the world.

**Design & Develop** Bookosh. A multiplatform punjabi literature sharing platform developing in GraphQL(Apollo), React.js and React native.

**Designn, Develop & Lead** Event Ticket Reservation System *http://emgtickets.com/*. An ubiquitous ticket reservation system for a Canadian company.

**Design & Develop** BidMyStay. Mobile applications for both Android and iOS for Booking Properties, Villas, Hotels, and other accommodations on the basis of Bid placed using React native.

**Design, Develop & Lead** GreatJobs https://www.greatjobsamerica.com/. A Job Portal for Canada based Job Consultancy company.

**Design & Develop** Gentek Power https://www.gentekpowerworld.com/. A website for Gentek Power Company which produces industrial, commercial and home gensets.

**Design, Develop & Lead** Student Tracking System. A real-time student progress tracking system. The product is under construction which spans over web and mobile domains using MERNG stack

**Design, Develop & Lead** School Bus Tracking System. A real-time school bus tracking system for our client. The product is under construction which spans over web and mobile domains with GPS and Maps solutions. We are using MERNG stack for this solution

Design, Develop & Lead Language Lab - An Android App for the project mentioned

**Design, Develop & Lead** Language Lab - A Web App, a voice-recognition and synthesis system with language translation on run-time using bots. The product is developed in Meteor full-stack with GraphQL, React and Mongoose. We developed our own voice-recognition and synthesis system for this product

**Design, Develop & Lead** Bachpan SAP - An Android App (Student Assessment Programme), an ERP Solution for School Management, Employees, Students and Parents. The automation based software solution is capable of managing all resources of school with more than 15 modules.

**Design, Develop & Lead** Bachpan SAP - A Web App (Student Assessment Programme), an ERP Solution for School Management, Employees, Students and Parents. The automation based software solution is capable of managing all resources of school with more than 15 modules. The product is fully developed in Meteor framework on Full-stack with mix of Blaze and React

**Project Lead** https://www.ahpshoshiarpur.com/, a website in wordpress for Academic Heights Public School, Hoshiarpur

**Project Lead** https://www.bachpanhoshiarpur.com/, a website in wordpress for Bachpan School, Hoshiarpur

**Design, Develop & Lead** Career Escort, an Android App made using Cordova integration technology with Meteor for Real-time APIs.

**Design, Develop & Lead** Patron Career, a real-time job portal for managing jobs, hire & recruitment, payroll management, job time-frame management and others. The product is developed in Meteor framework using a mix of Blaze and React front-end with Mongoose as back-end

**Design, Develop & Lead** Addo, a restaurant management cross-platform application for uengage.in

**Design & Developed** GSTNext, a cross-platform and cloud based solution for GST with Inventory Management, Billing, and Accounts Management

**Developed & Design** Optician Management System, a desktop app in Java which in use by many Opticians at my native place for managing Optical Inventory and Patients with their vision data

**Developed & Design** Prabandhan, a desktop app in Java for managing Inventory of any business and is implemented at various business houses

**Developed & Design** http://www.sgndetrust.org/, a web app in wordpress for Shri Guru Nanak Educational Trust

**Developed & Design** http://www.himtinstitute.com/, a web app in django frameworks for HIMT which also contains ERP for managing Admissions

**Developed & Design** http://www.triinfotech.in/, a web app in django and web2py Python frameworks for Tri Infotech Inc which also contains blog and Quiz app

**Developed & Design** http://playgoods.in/, an e-Commerce platform for selling Play Goods for Play Goods Inc India

**Developed & Design** YuPlayGod Downloads (Official) [http://download.yuplaygod.com/], a web app for maintaining various ROM builds for YU series of smartphones

**Developed & Design** YuPlayGod Developers (Official) [http://developer.yuplaygod.com/], a web app for Project Highway by YU Televentures

**Developed & Design** http://www.taxicabdulles.com/, a website for cab company in Dulles (US)

**Developed & Design** http://www.mrsinghphotography.com/, a web app for professional photographer

Developed & Design PhotoBucketStudio, a web app for sharing professional photography work

Developed & Design http://www.kespripane.com/, a punjabi dictionary and search engine

**Developed & Design** Xtreme Sense, an android app for collecting and syncing human activity data using different sensors to cloud

**Developed & Design** http://tpengine.com/ is the web application for handling and implementing Fuzzy Cognitive Maps for real-time/life scenarios. It uses The Possibility Engine API as back engine. This is fully data-driven web application made in full-stack web framework Java Server Faces 2.2. The web container and server used to deploy this web app is Glassfish. The project is developed for Thicket Labs LLC, NY

**Developed & Design** The Possibility Engine, a library for Fuzzy Cognitive Maps in Java for Thicket Labs LLC, NY

Developed Inventory & Stock Management System for an electronic mall in .Net Technologies

**Developed & Design** APS (Automatic Profile Selector), an android app which sense the human activity and set profiles according to the preference set for the activity

**Developed & Design** http://www.drinking.dachb.co/m, a survey web app for collecting data of Binge drinkers

**Developed & Design** http://cheal.info/, a Computational Healcare (cHeal) Lab website for Lakehead University

**Developed** TECHN0VIBES 2015/2016 - an IT Club website for managing various activities and for administrative purpose in Python/web2py https://itclub.pythonanywhere.com

**Developed & Design** Xtreme Power, an android for double tap or wave proximity sensor for making screen on and off

**Developed & Administrate** Online Quiz Application in web2py/Python/HTML/CSS for RBIM, Hoshiarpur (2010-Present)

**Developed & Design** Xtreme Cam, an android app/service like Moto X's twister service which open camera

Web Hosted/Domain http://luxmilifestylemahilpur.com

**Developed** First-Ever Kernel Worldwide (Xtreme Series by screen name *andiroxu* for MediaTek 6577 Based SoC Phone Brand MicroMax, Model Canvas 2, which supported Jelly Bean (4.2.x-4.3.x) with multiple features and optimizations for RAM, Camera, WiFi, File System and Battery

**Developed** Project Xtreme - a very popular MOD for android devices which was very popular on XDA Developer Forum with screen name andeveloper

**Developed** Xtreme Booster, a memory management android app for rooted devices. A very popular app on XDA with screen name *andeveloper* 

**Developed & Administrate** Online Review of Examination (College Management System) in JSF/Servlets/JSTL/MySQL/Glassfish Application Server for CTIMIT, Jalandhar (2009-2010)

Developed website using ASP.NET/C#.NET/IIS7 for Mago Dental Clinic

#### **Developed** website for Tech Miller, UK (Now Non-functional)

#### TEACHING EXPERIENCE

Project Work (22 times, since 2008)

Programming in C and C++ languages (19 times, since 2008)

Programming in Java (14 times, since 2008)

Web Designing (6 times, since 2008)

Web Development using .Net (2 times, since 2008)

Introduction to Computers & IT (4 times, since 2008)

Data Structure (5 times, since 2008)

Digital Systems Design (3 times, since 2008)

Operating System (2 times, since 2008)

Computer Graphics (1 time, since 2008)

Database Management System (3 times, since 2008)

E-Commerce with Practical Implementation (1 times, since 2011)

Given special trainings on various top notch technologies and frameworks (since 2008)

Special Summer Training & Workshop on Python/Php/Java/ES5+ (4 weeks every summers, since 2011)

#### Computer Skills

- Languages: C, C++, Java, Python, Node, Ruby, MATLAB, ASP.NET, C#.NET, Unix Shell Scripting, HTML, CSS, JavaScript, jQuery, Bootstrap, PHP, XML
- Frameworks/Libraries: React, React Native, Angular (2 Onwards), Vue.js, Meteor, Django Framework, Flask Micro-framework, Rails Framework, web2py Framework, JSF Framework, Laravel Framework, CodeIgnitor 2 Framework
- Machine Learning: Fuzzy logic and Neural Network toolboxes in MATLAB, all major APIs in Python and Java for Neural Networks, Fuzzy logic, Fuzzy Cognitive Maps
- Databases, Servers & Applications: Mongo, MySQL, Postgres, MS-SQL Server, Apache Webserver, GlassFish Application & Webserver, Apache, Apache Tomcat, IIS, IATEX, Spreadsheet, and Presentation software
- Cloud Services: DigitalOcean, Heroku, AWS, Google Cloud
- Operating Systems: Gnu/Linux (Primary), Unix (BSD), Windows, Mac

Student name	Organization	Designation
Tarun Gupta	VenturePact, India	Software Engineer
Vishnu Singh Nair	Acusis Softwares, Banglore, India	Software Developer(ASP.NET/C#)
Dheeraj Singh Thakur	Sapieo Software, Noida, India	Vignette Developer(JAVA)
Ravi Singh	Baba Farid College, Bathinda, India	Assistant Professor
Richa Puri	Guru Nanak Khalsa College, Sultan-	Assistant Professor
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Simarjit Singh	SGTBIMIT, Jalandhar, India	Assistant Professor
Sumit Sehgal	Doaba College, Jalandhar, India	Assistant Professor
Amandeep Singh	Worked at Deftsoft Informatics.	Software Developer
	Works at Zapbuild Technologies Pvt.	•
	Ltd, Mohali, Punjab	
Amandeep Singh Virdi	Cloudera University, India	Technology Consultant
Ankit Rajpoot	JK Technosoft Ltd., India	Senior Software Engineer
Kulwinder Singh	Pdssia IT Consultants(P) Ltd.,	Web Developer
Pannu	Panchkula, Punjab	-
Kushal Sharma	Kayako Software, Jalandhar, Punjab	Subject Matter
Preeti Tripathi	Seasia Consulting, India	Product Consultant
Sandeep Verma	smartData Enterprises, Mohali, India	Senior Software Engineer
Shakti Sangwan	Vertex Infosoft Solutions Pvt. Ltd,	Software Developer
	India	
Swati Sharma	Kapsons Solutions Pvt. Ltd, India	Software Testing Engineer
Jatinder Aery	Worked at MBD Group, India.	Territory Sales Incharge
	Works at Shrachi Group	
Karan Mahajan	Enbake Solutions, Mohali, India	Android Developer
Megha Ahuja	Worked at NIELIT, India. Works at	Software Trainer
Q 1 Q 1	CGC Group, India	D 4 1 A 1 · · · 4
Savkaran Singh	Wipro Infotech, India	Database Administrator
Pooja Guleria	Jarc Infotech and Seasia Infotech	Software Tester
Nikhil Arora	Guru Nanak Dev University College,	Assistant Professor
Ravi Lamba	India Evergreen Publications Pvt. Ltd., In-	Software Developer
Tavi Balliba	dia	Software Beveloper
Shaveta Shukla	Worked at PT Pure Testing. Works	Software Tester
	at PureTesting, India	
Nitin Sharma	IBM Global Services, India	IT Consultant
Vipin Sharma	Gybhs Education Pvt. Ltd., Jaland-	Software Developer(.NET)
	har, India	
Rohit Kalia	Nitor Infotech, Pune, India	Test Analyst
Ketan Bharadwaj	Tri Innovations Pvt. Ltd., Chandi-	Software Developer (Android)
	garh, India	
Sameer Eric Naru	Pune, India	Financial Services
Harminder Singh	Sebiz Infotech, Mohali (SAS Nagar),	Software Developer (Android)
Manish Dhir	India Accenture India, Hyderabad, India	Software Tester
Richa Gupta	Impinge Solutions, Mohali (SAS Na-	Impinge Solutions
тисна Эпрта	gar), India	Impinge bolutions
Shivam Nayyar	TCS, Chennai, India	Software Developer
Hardeep Kaur	TCS, Gurugram, India	Software Developer  Software Developer
Vaihbav Anchal	T & G Web Solutions Ltd, India	Web Developer
Saurab Saini	BlueJeans, Banglore, India	DevOps
Vikrant Chowdary	Amazon, Hyderabad, India	Logistic Manager
Harpreet Singh	St. Joseph School, India	Computer Teacher