

## Ajay Bhatia

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INTRODUCTION	Senior Software Consultant & Developer having more than 15 years of experience with a demonstrated history of working on complex business application and machine learning problems. Skilled in React, React Native, Flutter, Android, Java, Python, Machine Learning, Django, PHP, C++, HTML, CSS, jQuery and other modern web and mobile libraries and frameworks along servless technologies.	
CONTACT INFORMATION	Escorts Street, Manavta Nagar, Sutehri Road Hoshiarpur, Punjab, INDIA 146001	Voice: (+91)9815233725 E-mail: prof.ajaybhatia@gmail.com
PROJECTS	<p><b>AHPS Pathshala</b> <a href="https://play.google.com/store/apps/details?id=com.ahpshoshiarpur.pathshala">https://play.google.com/store/apps/details?id=com.ahpshoshiarpur.pathshala</a>.</p> <p>AHPS Pathshala is a mobile application made for the stakeholders of Academic Height Public School and Bachpan Play School. Using this app parents can monitor the progress of their ward in the academic activities, view their daily attendance, daily work done in class, view online test results of online quiz through app, important events and time table. Students can give scheduled tests, submit assigned homeworks, attend online classes, chat with their subject teachers, view notes by subject teachers, watch video notes posted by subject teachers, daily quotes, random math facts, random vocabulary with meaning and example and watch suggested videos. Teachers can post daily attendance, daily classwork, homework, video lectures, deliver online class, create tests and chat with students.</p> <p>The app is developed majorly in React Native and firebase .</p> <p><b>AHPS Pathshala Web Admin</b> <a href="https://ahps-sap.web.app/">https://ahps-sap.web.app/</a>.</p> <p>AHPS Pathshala (foremly AHPS SAP) is a web-admin for AHPS Pathshala mobile app. Admin and Teachers are the members who has direct control to the application for managing various activities to be posted, administrate and manage by the schools staff, teacher and admin. The app is made using React as front-end with firebase as a backend for managing data, resources, cloud functions, hosting and push notifications.</p> <p><b>AHPS Pathshala Video Conferencing Platform</b> <a href="https://pathshala.ahpshoshiarpur.com">https://pathshala.ahpshoshiarpur.com</a>.</p> <p>AHPS Pathshala Video Conferencing Platform is a self-managed and self-hosted Learning Management System (LMS) for teaching remote students online. It offers audio/video sharing, presentations with extended whiteboard capabilities - such as a pointer, zooming and drawing - public and private chat, breakout rooms, screen sharing, integrated VoIP using FreeSWITCH, and support for presentation of PDF documents and Microsoft Office documents. It uses the browser's support for web real-time communications WebRTC to send/receive audio, video, and screen.</p> <p><b>AHPS Accounts</b> <a href="https://accounts-ahps.web.app/">https://accounts-ahps.web.app/</a></p> <p>AHPS Accounts is an accounting web based management application for managing student fee with features like fee headers management, fine management, concession management, various fee reports - default lists, fee cards, fee history, cash management. Accounting and management for other stocks of school is work-in-progress. The app is made using React and firebase as a part of AHPS Pathshala ecosystem.</p> <p><b>OnThisDay</b> <a href="https://play.google.com/store/apps/details?id=com.ajaybhatia.onthisday">https://play.google.com/store/apps/details?id=com.ajaybhatia.onthisday</a>.</p>	

OnThisDay is a history tracking app which shows various events happened on specific day ranging from births, deaths, anniversaries to all historical events. Typescript, ApolloServer, ApolloClient, web-scraping and React Native are used as main technologies.

**EMGTickets** <http://emgtickets.com/>.

EMGTickets is an ubiquitous event ticket reservation system developed for Elevated Media Group, a canadian ticket marketplace company which also manages various events across Canada and USA. Using this product user can view the various upcoming events, it's SVG map, can book a seat by relocating on visual map and gets regular notifications. The app is available both on web and mobile.

The main technology stack used to develop this product is Meteor reactive framework with React and React Native as frontend.

**BidMyStay** <https://play.google.com/store/apps/details?id=com.bidmystay>.

BidMyStay is a cross-platform mobile application for both Android and iOS. Using this app a user can book properties, villas, hotels, and other accommodations on the basis of bid placed. This product belongs to QuartetVision. This product is developed in React native with backend provided by the contract company.

**GSTNext** <https://gstnext.herokuapp.com/>.

GSTNext is a cross-platform and cloud based solution for managing GST with Inventory Management, Billing, and Accounts Management for small shops. This is a personal product made using Meteor and Blaze.

**YuPlayGod Downloads (Official)** <http://download.yuplaygod.com/>.

YuPlayGod Downloads is a web app for maintaining various ROM builds for YU series of smart-phones. This project was a part of contract with Informatics Ltd. This project is purely developed in jQuery with web scraping from their own servers without writing any API server.

**YuPlayGod Developers (Official)** <http://developer.yuplaygod.com/>.

YuPlayGod Developers is a web app for Project Highway by YU Televentures for YU smartphone developers and collaborators where they can follow the set standards laid down by YU Televentures to develop and release a ROM for their smartphones, It is like a continuous integration tool for ROM and release management. The project was made in PHP using Laravel Framework and MySQL backend.

**Kesari Pane** <http://www.kesripane.com/>.

Kesari Pane is a punjabi dictionary and search engine for the people who want to connect with each other in native language punjabi. The project is owned by NRI who is residing in USA and part of his charity programme towards punjabi and sikh literature. The project is developed in pure PHP with MySQL.

**TPEngine** <http://tpengine.com/>

TPEngine 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 as a

part of UN funding project.

### **The Possibility Engine**

The Possibility Engine is a library for Fuzzy Cognitive Maps in Java for Thicket Labs LLC, NY as a part of TP Engine. The project is developed single handed with the inputs from Troy University Research Team, Alabama, USA.

### **Xtreme Kernels**

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

### **Project Xtreme**

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

### **Xtreme Booster**

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

## **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 ICAFI 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 & Cloud, Various Organizations, 2018-2019

Best Contributor, Education & Admissions, RBGI, 2019, Voter Awareness, Voter Carnival, District Administration, 2017

Best Motivator, District Administration & District Welfare, 2016

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

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

First Position in University Examination, 2001-2004

PROFESSIONAL  
EXPERIENCE

**Software Consultant & Freelancer** August, 2004 - Current

**Google, INDIA** *Google Community Lead* September, 2019 - 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>

**Thicket Labs LLC, 67 West Street Brooklyn, NY 11222** *Senior Software Developer & Project Manager* May, 2014 - March 2016

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

RESEARCH  
INTERESTS

Android Platform, Medical Informatics, Decision making, Mathematical modelling, Fuzzy systems, Optimization techniques, Linux Kernel tuning 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.

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.

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.

TECHNICAL 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, Flutter, 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 Web-server, GlassFish Application & Webserver, Apache, Apache Tomcat, IIS,  $\text{\LaTeX}$ , Spreadsheet, and Presentation software
- Cloud Services: DigitalOcean, Heroku, AWS, Google Cloud
- Operating Systems: Gnu/Linux (Primary), Unix (BSD), Windows, Mac