

# Pankaj MALHOTRA

## PERSONAL DATA

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PLACE AND DATE OF BIRTH: Chandigarh, India | 14 July 1994  
WEBSITE: [pankajmalhotra.com](http://pankajmalhotra.com)  
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## EDUCATION

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2012-2016 Bachelor's Computer Science and Engineering . IIIT Hyderabad, India.  
ACHIEVEMENTS Secured rank 123 among 1.2 million students in All India Engineering Entrance Examination - 2012  
A1 grade in all subjects at intermediate/+2 examination CBSE 2012  
A1 grade with CGPA 10/10 in matriculation examination CBSE 2010

## INTERESTS

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WEB ENGINEERING/SERVICES, AUTOMATION, DISTRIBUTED SYSTEMS, FREE/ OPEN SOURCE SOFTWARE

## WORK EXPERIENCE

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MAY-AUG 2016	<p>Intern Software Development Engineer at AMAZON WEB SERVICES, Cape Town, South Africa</p> <p><i>Data Storage Solution for Dynamic Routing Engine.</i></p> <p>Designed and Implemented platform for fetching data from multiple systems and storage to make it available in real time. Abstraction layer using AWS Simple Queue Service SQS for adapting to data from unreliable, low availability and high latency systems. Transactional layer and queryable interface based on Elasticache/Redis. Using Elasticache as a primary database with cache controller implemented in Golang.</p>
MAY-JUL 2015	<p>Software Engineering Intern at BROWSERSTACK Mumbai, India</p> <p><i>Developer Tools for Mobile Browsers.</i></p> <p>Worked with mobile team at BrowserStack to develop remote debugging tools for mobile browsers. Inspired by chrome devtools and remote debuggers like Valence(Mozilla), ios-webkit-debug-proxy(Google) and Weinre(Apache). Support for Android and iOS.</p>
MAR-MAY 2015	<p>Consultant/ Spring Scholar at HASHICORP, San Francisco, CA/ Remote</p> <p><i>Infrastructure Automation, Service Discovery and PaaS</i></p> <p>Worked remotely to build a platform as a service tool called ATLAS. Using infrastructure automation tools like Terraform, Consul for distributed service discovery and as a key value storage. Storing infrastructure configuration using Packer and as AMI's. Also wrote examples and tutorials for deploying projects on AWS using ATLAS workflow.</p>
MAY-JUL 2014	<p>Google Summer of Code Intern at MOZILLA CORPORATION</p> <p><i>REST API's and Test Automation</i></p> <p>Analysed protocols and frameworks for data transfer speed and efficiency, carefully inspected Google Protocol Buffers, JSON and XML format. Implemented REST API for a Django/Playdoh application OneandDone and wrote Selenium functional tests using Pytest for the same while working with WebQA team. Wrote configuration files for Travis and Jenkins CI.</p>

## RESEARCH EXPERIENCE

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- INTEL INDIA**    Ambulatory EEG and Seizure Alert System  
Developed an affordable and wearable device for epilepsy patients in rural communities who cannot afford the expense of modern healthcare.  
Received "Jury Popular Choice Award" at Intel India Innovation Conclave 2014.
- IIIT HYDERABAD**    Dynamic Resource Management in IaaS Cloud  
Worked under Dr. Suresh Purini in Software Engineering Research Centre at IIIT Hyderabad. Combined techniques of hot plugging and live migration of virtual machines along with machine learning models to develop a hybrid model(horizontal + vertical) which can predict possible bursts and scale up/down infrastructure accordingly.

## VOLUNTEERING EXPERIENCE

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- MOZILLA**    Official Representative of Mozilla in Hyderabad, India  
Organizing and attending events, recruiting and mentoring new contributors, documenting and sharing activities, and supporting local communities.
- IIIT HYDERABAD**    Admin, Open Source Development Group  
Making university students aware about Free/ Open Source Software also teaching programming, version control, IRC, Open Web basics and developing tools for educational purposes.

## SKILL SET

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- PROFICIENT:**    C++, Python  
**BASIC:**    Bash, GO, Ruby, Javascript  
**VERSION CONTROL:**    GIT, Mercurial  
**SOFTWARE DEVELOPMENT:**    Agile, SCRUM/ KANBAN, Asana, Sprint Planning, Estimations, Burndown Charts, Retrospectives, Deployments, Pipelines  
**AWS SERVICES:**    S3, DynamoDB, Lambda, SNS, SQS, ElastiCache/ Redis  
**MISC:**    DNS based load balancing, Service Discovery, Health Monitoring  
HA Proxy, NGINX, Websockets, TLS Terminators, MITM Proxy, Continuous Integration/Deployments, Travis, Jenkins, Selenium

## OTHER ACTIVITIES

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- PHILOSOPHY**    Wrote term paper on "Machine Morality and Ethics of Artificial Intelligence"  
Studied philosophical topics related to God, Knowledge and Consciousness.  
Anslem's/ Gaunilo's arguments, Pascal's Wager, Knowledge - Justified True Belief, Descartes' arguments, Nelson Goodman/ Ravens Paradox, Riddles of Induction, Physicalism - Frank Jackson.
- APTITUDE TESTS**    Among top 0.1% / rank-147 in ISAT examination 2012 conducted by Indian Institute of Space Science and Technology.  
Got selected for INSPIRE scholarship 2012 by Department of Science and Technology.
- INNOVATION**    Organizing and participating in hackathons and startup events.  
Received special mention at Startup Weekend Hyderabad 2013 for developing an Android application "Knock Off" to prioritize incoming user calls.  
Got sponsorship by Software Engineering Research Centre at IIIT Hyderabad for developing an IVR based health service system to connect patients in rural areas to nearest doctors.