Pankaj MALHOTRA

PERSONAL DATA

PLACE AND DATE OF BIRTH:	Chandigarh, India	14 July 1994
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EDUCATION

2012-2016   Bachelor's Computer Science and Engineering . IIIT Hyderabad, India.

WORK EXPERIENCE

JUNE 2017-PRESENT

Software Development Engineer at AMAZON WEB SERVICES (AWS), Cape Town, South Africa
Serverless Architectures/ Task Parallelism/ Multi-Master(Active/Active) Systems

Utilising AWS Managed services to develop serverless systems. Service stacks available as cells based in different geographic locations to operate individually and actively in multi-master mode for parallelising task executions and ensuring high availability of services.

SEPT 2016 -JUNE 2017

Software Development Engineer at BROWSERSTACK, Mumbai, India
Infrastructure Operations/ Monitoring/ Logging and Web Services.

Developed and operated cross region data center services for ensuring High Availability and Uptime of applications.

MAY-AUG 2016

Intern Software Development Engineer at AMAZON WEB SERVICES, Cape Town, South Africa
Data Storage Solution for Dynamic Routing Engine.

Designed and Implemented platform for fetching data from storage systems 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.

MAY-JUL 2015

Intern Software Development Engineer at BROWSERSTACK Mumbai, India
Developer Tools for Mobile Browsers.

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.

MAR-MAY 2015

Intern Consultant/ Spring Scholar at HASHICORP, San Francisco, CA/ Remote
Infrastructure Automation, Service Discovery and PaaS

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.

MAY-JUL 2014

Intern Google Summer of Code at MOZILLA CORPORATION/ Remote
REST API's and Test Automation

Analysed protocols and fameworks 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.

Research Experience

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
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

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.

Interests

Web Engineering/Services, Automation, Distributed Systems, Free/ Open Source Software

Skill Set

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

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.