Pankaj Malhotra

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Education

2012–2016	**B.Tech in Computer Science and Engineering**, *IIIT Hyderabad*, *Hyderabad*.
2011–2012	**Senior Secondary**, *CBSE*, *94.8%*.
2009–2010	**Secondary**, *CBSE*, CGPA, *10/10*.

Interests

○ Web Engineering/Services, DevOps, Distributed Systems, Algorithms & DS

Work Experience

2014 Google Summer of Code Intern, *Google*.

Compared and 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 distributed across different timzeones at Mozilla.

○ Later worked as a lead developer for the application.
○ All code went directly to Production server after reviews and testing on staging servers.
  - Application Live at https://oneanddone.mozilla.org
  - Source Code https://github.com/mozilla/oneanddone
  - Automated Test Suite functional on internal CI servers, Jenkins and SauceLabs.
  - Source Code: https://github.com/mozilla/oneanddone-tests
○ Mentor/Reference: Bob Silverberg, QA Engineer, Mozilla Corporation.

2014 Open Source Developer, Mozilla Corporation.

Worked closely with WebQA team writing Gaia-UI-Tests for Firefox OS, Selenium scripts for web applications. Configured continuous integration servers for many test suites, mainly Travis and Jenkins.

○ Awarded WebQA Apprentice badge for code contribution and running Automation
○ GitHub push access for WebQA repositories:
  - IRC Nick: "bitgeeky"
  - GitHub profile: https://github.com/bitgeeky
  - Bugs Squashed: http://goo.gl/7bXgNb
○ Mentor/Reference: Stephen Donner, Web QA Manager, Mozilla Corporation.

2013 Contract Android Developer, *BizcoLabs*.

Worked with a start-up on an Android application using Google Maps API and client to server data communication as a part of course project.

Research Experience

Software Engineering Research Center

Dynamic Resource Management in IaaS, *IIIT Hyderabad*.

Currently researching on developing algorithm for dynamically scaling up/down of resources both vertically and horizontally in Infrastructure as a Service.

○ Build a vendor that would:
  - Detect possible bursts and auto perform Scale up/down both vertically and horizontally.
  - Give instructions to the API based on threshold and trigger parameters/configuration made available by the Infrastructure service provider.
○ Mentor/Reference: Dr.Suresh Purini, Assistant Professor, IIIT Hyderabad.

Intel Innovation Conclave

Ambulatory EEG and seizure alert system, Intel.

Member of team winning Jury popular choice award at Intel India Innovation Conclave 2014 for Research and Development of an embedded system based on IoT and powered by Intel Galileo Microprocessor. An affordable and portable device to track and provide alerts on epilepsy attacks, seizure for detection and advanced care

○ Mentors/Reference:
  - Dr. Shubhajit Roy Chowdhury, Assistant Professor, IIIT Hyderabad
  - Noor ul Mubeen, Lead Software Engineer, Intel
  - Sourashtra Singh, Component Design Engineer, Intel
○ Official Results https://iec2014.intel.com/winner2014.aspx

Academic Projects

Artificial Intelligence Bot Moderator.

A moderator and a predefined game strategy that allows two AI Bots to compete against one another within a set of game rules and given map. Each player/AI has to control its bots, kill opponent's bots and destroy opponent's assets.

○ Application Source Code: https://github.com/bitgeeky/moderator

Desktop Audio Mixer.

A desktop application built using Python and Tkinter which can manipulate *.wav files using Numpy and allows users to perform Amplification, Modulation, Mixing, Time Scaling, Time Shifting, Time Reversal operations on wave functions.

○ Source Code: https://github.com/bitgeeky/audiomixer

Competitive Achievements

○ All India Rank – 147 in Indian Institute of Space Science and Technology (IIST) Examination.
○ All India Rank – 123 in AIEEE Examination (out of 11,00,000 students)
○ INSPIRE Scholarship by Department of Science and Technology Government of India for being among top 0.1% performers at senior secondary level.
○ Solved a few hundred algorithmic problems on Sphere Online Judge(SPOJ).

Volunteer Experience

○ Mozilla India Representative
○ Admin Open Source Developers Group(OSDG) IIIT Hyderabad