Rahul Patel

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👁 - Click to view

EDUCATION	**School of Engineering and Applied Science, Ahmedabad University (AU), Gujarat, India**

- Bachelor of Technology (B.Tech.), Information and Communication Technology 👁
  - Cumulative GPA: 3.55 / 4.33 (Second in University) 👁   Jul 2012 – May 2016

EXPERIENCE

TEACHING ASSISTANT (FULL TIME), AHMEDABAD UNIVERSITY	Aug 2016 – current
Algorithms and Optimization for Big Data	Jan 2017 – May 2017
Software Engineering	Jan 2017 – May 2017
Analog and Digital Communication	Jan 2017 – May 2017
Introduction to Computation and Programming	Jan 2017 – May 2017
Computer Networks	Aug 2016 – Dec 2016
Introduction to Computer Programming	Aug 2016 – Dec 2016

STUDENT FELLOWSHIP, VENTURE STUDIO (FULL TIME)   Nov 2015 – May 2016

- Developed a cloud telephony based Interactive Voice Response(IVR) system called Kahinee 👁 , for increasing health literacy in rural citizens, using Design Thinking. A part of the system was tested in a joint pilot with Barakat Bundle 👁 (Harvard University based social enterprise).

INTERN (PART TIME)   Jan 2015 – Jul 2015

- Worked on four mini-projects based on computer vision and image processing at PyImageSearch using OpenCV and Python. [**Recommendation**👁]

TEACHING ASSISTANT (PART TIME), AHMEDABAD UNIVERSITY

Introduction to Computation and Programming lab	Jan 2016 – May 2016
Introduction to Computer Programming lab	Aug 2014 – Dec 2014
Basic Electric Circuits theory	May 2014 – Jun 2014
Object Oriented Programming theory	Jan 2014 – May 2014
Basic Electric Circuits theory	Aug 2013 – Dec 2013

ELECTIVES   Machine Learning, Bio-informatics, Information theory and Coding, Cloud Computing, Digital Signal Processing, Data Structures & Algorithms, User Centered Design.

ACADEMIC AWARDS & ACHIEVEMENTS

- **Android Basics Nanodegree by Google** 👁   Mar 2017
  Completed 10 projects based on data persistence and networking in android to earn the degree.
- **India HCI Cafe**   Dec 2016
  Kahinee selected for presentation at conference India HCI 2016, IIT Bombay, India.
- **Gandhiyan Young Technological Innovation(GYTI) Award** 👁   Mar 2016
  CheckIt was one of the 43 (top 1.8%) selected projects, out of 2363 nominations, from 273 Universities of India belonging to 50 technological domains, was felicitated this award at the **President's Estate**, India.
- **Graduate Apptitude Test in Engineering(GATE) - 2016** 👁   Mar 2016
  Secured an All India Rank(AIR) of 3764 (top 3.47%), out of 108495 applicants who appeared for exam.
- **Innovative Trainer Award Competition**   Feb 2016
  The award was given by Indian Society for Training & Development, Vadodara Chapter to Kahinee for it's usage as an innovative training medium for training ASHA workers and rural citizens regarding various health issues.
- **Speaker**   Jul 2015
  Workshop on Android App Development for Manager, Designers and non-IT people organized by Ahmedabad University Students Branch of IEEE at IET-AU(now SEAS-AU).

PUBLICATIONS   **CONFERENCE**

- Patel, Rahul, et al. "CheckIt-A low cost mobile OMR system," *TENCON 2015 - 2015 IEEE Region 10 Conference*. IEEE, 2015. 👁

PRESS   "HEALTH TIPS ARE JUST A CALL AWAY." Ahmedabad Mirror, 1 Mar. 2016. 👁

SELECTED PROJECTS	▪ **Generative Adversarial Nets - GAN**	Mar 2017 – current

SELECTED PROJECTS

▪ **Generative Adversarial Nets - GAN** — Mar 2017 – current
Develop a GAN for generating images using TensorFlow. Used PPCA for improving the performance of generator network.　Team size-4

▪ **visionEd** ◉ — Mar 2017 – current
Developed a drag-and-drop block based rapid prototyping toolkit for implementing computer vision and image processing alogithms.　Team size-2

▪ **CheckIt Go** ◉ — Nov 2014 – current
Developed an Android application to check bubble/OMR sheets using concepts of computer vision and image processing.　Team size-2

▪ **Protein classification** — Jul 2015 – Nov 2015
Developed a program for Cyclin protein classification using Support Vector Machine (SVM-Light library). Compared different kernels and measured their effectiveness.　Team size-4

▪ **JPEG compression** — Jul 2015 – Nov 2015
Simulated JPEG compression model in MATLAB, after understanding its fundamentals.　Team size-2

▪ **Storage portal** — Jul 2015 – Nov 2015
Developed a multi-tenant SAAS application to store user data, allowing tenant admin to alter the behaviour of the service according to the requirement.　Team size-2

▪ **Real Time Face Detection on HD videos** — Jan 2015 – Apr 2015
Developed a real time face detection algorithm on high definition videos using Viola-Jones and CAMSHIFT. In the process, understood, implemented and compared other detection and tracking algorithm.　Team size-4

▪ **Improved CORDIC algorithm - Combined Coefficient Selection and Shift and Add Implementation (CCSSI)** — Jan 2015 – Apr 2015
Simulated an algorithm to develop low complexity multiplier less rotators in MATLAB based on an IEEE Transaction paper. A hardware for 8-point FFT was identified, coded in Verilog.　Team size-8

▪ **Fair Share Scheduling** — Jan 2015 – Apr 2015
Modified Linux Kernel Kernel 2.6.18 to implement Fair Share Scheduling after understanding various scheduling policies.　Team size-4

▪ **Digital Energy Meter** — Jul 2014 – Nov 2014
Developed a real-time digital energy meter using AVRs ATmega32 which can calculate power, energy and cost of consumed electricity of the attached device.　Team size-3

SKILLS

▪ **Languages, softwares & frameworks**
Python, C, C++, Java, Android, HTML, CSS, Javascript, SQL, PHP, MATLAB, TensorFlow, OpenCV, SCILAB, CodeIgnitor, Django, Orcad, LTSpice, LaTeX, Eclipse, Netbeans,.

▪ **Hardware**
Atmega 32, Arduino Uno.

▪ **Design Thinking**

POSITIONS

▪ **Head**, Technical Committee of Ahmedabad University Students' Branch of IEEE　2015
▪ **Head**, Intra-college Students' Academic Committee　2013 – 2014
▪ **Head**, Intra-college Students' Academic Committee　2012 – 2013

EXTRA & CO-CURRICULAR

▪ **Open source contributor** to AIMA-Python　Sep 2015 – current
▪ Graffiti Making runner-up at AU Youth Festival　2015 – 2016
▪ Coordinator at workshop named IBNC in association with ACES ACM-IIT Delhi.　Jan 2015
▪ Volunteer at Open House and Group Counseling Session organized AU and Admission Committee for Professional Courses (ACPC)　Jun 2014
▪ Graffiti Making winner at AU Youth Festival　2014 – 2015
▪ Football winner at AU Dynamos　2013
▪ Relay race (4 x 100m) runner-up at AU Dynamos　2013

INTERESTS

▪ Political Science
▪ Swimming
▪ Singing