

Manav Kedia

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GitHub: <https://github.com/kediamanav>

EDUCATION

Program	University	Performance	Year
BTech in Computer Science and Engineering	IIT Kharagpur	CGPA : 9.38/10	2016
Secondary School	Hariyana Vidya Mandir	92.6%	2012
High School	The Frank Anthony Public School	96.8%	2010

SCHOLASTIC ACHIEVEMENTS

- **Official Reviewer** for the book titled 'Android Programming with OpenCV 3' by Joseph Howse for Packt Publishing
- Stood in the **top 1%** of the institute at the end of first year
- Secured an AIR of 2004 in IITJEE and 531 in AIEEE

SKILLS

- **Programming Languages:** C, C++, Java, Python, Eiffel, Objective C(Basic)
- **Web:** HTML, CSS, JQuery(Basic), PHP(Basic), MySQL, MEAN (Express, AngularJS, Node.js) STACK(Basic)
- **App Development :** Android App Development and iOS App Development
- Comfortable with Windows, Linux and MAC operating systems, Git and Scrum

RESEARCH PAPERS

- **Segmenting Highway Network Based on Speed Profiles**
2015 IEEE 18th International Conference on Intelligent Transportation Systems
Authors: Russel Aziz, Manav Kedia, Soham Dan, Sudeshna Sarkar, Sudeshna Mitra, Pabitra Mitra

PATENTS PENDING

- A system and method for range independent tamper proof tracking, (295/KOL/2015)

INTERNSHIPS

- **Intern at Adobe Big Data Intelligence Labs, Bengaluru**
(Guide: Dr.Sumit Shekhar) (May'15 - July'15)
 - Carried out feature extraction with state-of-the-art image and video processing techniques and deep learning
 - Collected the ground truth by a crowdsourced test on Amazon MTurk, via a MEAN stack survey web app developed in-house
 - Applied machine learning models to estimate key parameters
 - Deployed a prototype in the form of an Android app to exemplify the utility of the idea
- **Intern at The Chair of Software Engineering, ETH Zurich**
(Guide: Dr.Martin Nordio) (May'14 - July'14)
 - Implemented a standalone web server in Eiffel using Eiffel Web Framework. The web server provided the functionalities of the Eiffel Compiler to web-users and web applications through RESTful HTTP API methods
 - Designed the frontend in AngularJS, HTML and CSS.
 - The project is live at <https://codeboard.io/> and is being used by more than 5000 users worldwide

ACADEMIC PROJECTS

- **Recommending images to users on Pinterest.com**
(Guide: Prof.Pabitra Mitra, BTech Project) (In Progress)
 - Carried out image feature extraction using state-of-the-art deep learning algorithms
 - For each category of images, computed the correlation between users and users and images
 - A model trained on a snapshot of Pinterest to recommend images to users
- **Segmenting highway network based on speed profiles**
(Guide: Prof.Sudheshna Sarkar and Prof.Pabitra Mitra)
 - Dividing Indian roads into segments based on speed characteristics using a modified DBSCAN algorithm, in order to plan optimized routes to reduce time of travel using available GPS data from trucks

- **Predicting and classifying hotspots(restaurants,tolls,lodges) using truck GPS data**
(Guide: Prof.Sudheshna Sarkar and Prof.Pabitra Mitra) (In Progress)
 - Identified stopping points/hotspots from the data and built their arrival time distributions and duration of stay distributions
 - Clustered similar hotspots based on their arrival and duration distributions using k-means clustering
 - Labeled each cluster using ground truth data
- **Predicting the evolution of a user's writing style over a period of time on Quora** (Team Leader)
(Guide: Prof.Pawan Goyal, NLP Term Project)
 - Amongst the top 3 winning teams out of 28 teams for the best project felicitated by Flipkart
 - Computed a set of distinct writing features like humour, satire, use of abusive language, readability, informality in the answer
 - Tagged the quora dataset for the above features to obtain the gold standard data
 - Developed a sliding window regression model to predict the pattern of a user's future answering style
- **Analyze the behaviour of drunk users on Twitter** (Team Leader)
(Guide: Prof.Pawan Goyal and Prof.Animesh Mukherjee, Social Computing Term Project)
 - Analyze the relevance of health, food, money and swear words obtained from the tweets of a seed of alcoholic users and how they compare with non-alcoholic users
 - Classify users as alcoholic and non-alcoholic based on the opinions and sentiments of tweets
- **A Camera Search Engine**
(Guide: Prof. Sudheshna Sarkar, Information Retrieval Term Project)
 - Crawled flipkart's website to get camera features
 - Created a uniform indexing scheme and used nltk for sentiment analysis on the reviews to predict missing ratings of Cameras
 - Deployed MEAN stack to develop the interface
- **IPL Auctioning System**
(Guide: Prof.Pallab Dasgupta and Prof.Animesh Mukherjee, Database Management Term Project)
 - Crawled Wikipedia and official IPL websites to get the IPL Auctioning data
 - System was designed using Java Swing Library
 - Supported various range queries and standard auctioning queries on the dataset
- **Compiler for Tiny C (a subset of C language)**
(Guide: Prof.Partha Pratim Das, Compilers Term Project)
 - Made a working compiler for Tiny C from scratch
- **Graphics Editing Software**
(Guide: Prof.Partha Pratim Das, Software Engineering Term Project)
 - Made a graphics editing software using Java's Graphics Library. The software allowed users to create basic shapes and modify their properties
- **Football Betting Application**
(Self-Project)
 - Made an online betting application for the FIFA World Cup 2014 in Eifel, where people could login, bet and checkout the leaderboard. Frontend was made using AngularJS, HTML and CSS

STARTUP

- **Finalist** at Ideas '15 Techkriti, Business Plan competition
- **Finalist** at Kshitij Business Plan competition, for the most innovative startup idea

ACHIEVEMENTS IN TECHNICAL ACTIVITIES

- **Campus Winners and Finalists** of the **Goldman Sachs** Quantify competition
- Qualified for the **ACM ICPC Regionals 2015** with a rank of 103 in the Asia-Amritapuri online round
- **Winning team** at the Datawind Hackathon. Built a multiplayer android app using Shephertz API. It was based on the popular card game 'twenty nine'
- 2nd runners up at the IBM Hackathon organized at IIT Kharagpur. Made an android app that recommends doctors and hospitals to patients based on ratings and reviews. Patients can take online appointments
- Made an **Internet of Things based iOS app (in Review)** that tracks a Bluetooth Low Energy Device
- **Finalist** at Overnite '15, Coding Competition organized by Kshitij
- Successfully completed an **IEEE Certified Image Processing Workshop**. Used OpenCV library in C++