

# Manish Patel

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## EDUCATION

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- **Texas A&M University** College Station, TX  
*Masters in Computer Science; GPA: 4.0/4.0* *August 2018 – August 2020*
  - **Coursework:** Distributed Systems and Cloud Computing, Operating Systems, Advanced Networking and Security
- **Motilal Nehru National Institute of Technology** Allahabad, India  
*Bachelor of Technology in Computer Science and Engineering; GPA: 8.31/10.0* *July 2009 – May 2013*

## EXPERIENCE

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- **Texas A&M University** College Station, TX  
*Graduate Teaching Assistant* *January 2020 - May 2020*
  - Assisted the instructor in the design of teaching materials for Programming Studio CSCE-315.
  - Instructed labs, graded courses, and helped students in high-quality code writing and APIs integration.
- **Google LLC** Mountain View, CA  
*Software Engineer Intern* *September 2019 - December 2019*
  - Designed data augmentation techniques that increased performance of IA model by 14% for infrequent intents.
  - Co-authored a research article on template-based augmentation for the Spoken Language Understanding tasks; under-review in ICCL-20.
- **Centre for Development of Telematics** New Delhi, India  
*Research Engineer* *August 2013 - August 2018*
  - Researched, designed and implemented E-CSCF server of IP Multimedia Subsystem to handle the emergency calls in the network.
  - Optimized the code by modifying data structures and removing redundancies to increase the performance of the server by about 6% (120 calls per second).
  - Designed and implemented SIP-enabled VoIP application using Java and JAINSIP stack which allowed users to handle multiple lines concurrently.
  - Implemented a lightweight Command Line Interface using readline library for remote configuration and management of SBC; Created fault-tolerant and highly available systems for MAX-NG systems.

## LANGUAGES AND TECHNOLOGIES

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- C++, Python, Java, C, Bash, HTML, MySQL, Redis, Javascript, Ruby-on-Rails
- Linux, AWS, GCP, Android Studio, Spark, Hadoop, , Docker, Kubernetes, Jenkins

## TECHNICAL EXPERIENCE

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- **Emotions On Cloud:** Designed and deployed an active-learning based ML framework on GCP cloud platform; system learns from the feedback given by user in real-time; May 2020
- **TinySearch:** Developed a semantics based search engine using BERT embeddings in Neural Networks project; achieved a Precision@14 score of 0.533; May 2019
- **As You Like It:** Designed and implemented a personalized book recommender system using summary embeddings and improved efficiency by 0.42%(RMSE) of User-Item Collaborative Filtering and by 1.12%(AUROC) of BPR ; May 2019
- **Real-time Face detection and Emotion classification:** Studied, implemented, and compared the LBPH, PCA and Fisherface algorithms for face recognition and integrated it with emotion classifier to create real-time app; Nov 2018
- **Determination of PSAP and Routing of Emergency Calls in IMS:** Co-authored a research paper on alternative mechanism for routing emergency calls in IP Multimedia Subsystem; IEEE-ANTS 2017

## ADDITIONAL EXPERIENCE AND AWARDS

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- **Bumblebee: A Smartkey to your Car:** Awarded 2nd prize in TAMUHack for developing android app for smartcar; Jan 2019
- **Deployment of Broadband through NGN:** Trained in broadband deployment technologies by ITU, Asia Pacific; Nov 2017
- **Competent Communicator:** Awarded by Toastmasters International for competent public speaking; August 2018
- **Best Performer:** Awarded Best Employee of the Year award in the Call Processing Group in C-DOT; July 2016