Himanshu Patel

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EDUCATION

- **New Jersey Institute of Technology** | Newark, New Jersey   **May 2020**
  Master of Science in Computer Science   GPA: 4/4
- **DA-IICT** | Gandhinagar, Gujarat, India   **May 2017**
  Bachelor of Technology in Information and Communication Technology   GPA: 6.9/10

SKILLS

- Programming Languages: Python, Java, C++
- Web-based Languages: JavaScript, node.js, HTML5, CSS3, jQuery
- Database/Servers: MySQL, MongoDB, PostgresSQL, SQLite
- Cloud Services/APIs: Docker, AWS (Lambda, API Gateway, S3, EC2, DynamoDB, CloudFormation, CodeBuild, CodePipeline), Apache Spark, Google Cloud Platform, Hadoop
- Libraries/Framework: Keras, Pandas, Flask, AngularJS, OpenCV, Spring, Hibernate
- Tools: Android Studio, Splunk, OpsGenie, Git, Jenkins, Postman, Jira, Visual Studio Code

WORK EXPERIENCE

Student Researcher at NJIT | Newark, New Jersey   **Nov 2019 - Present**
- MS Thesis project supervised by Dr. Pramod Abichandani at Robotics and Data Laboratory, NJIT.
- Developed and implemented object tracking algorithm for indoor ground robots and drones using Density-Based clustering and K-D Tree. Used OpenCV, C++, and Python to build the software stack
- Implemented the algorithm by interfacing with Prophesee CSD3SVCD Event Based camera and a standard RGB webcamera.
- Algorithm provided 6 times faster Event Based camera tracking than a standard RGB camera-based tracking
- Created API documentation and tutorials to interface the system with a Nvidia Jetson TX2.

Software Engineering Intern at IDT Corporation | Newark, New Jersey   **Jun 2019 – Aug 2019**
- Worked with Voice Engineering Team to develop a ML prediction model for detecting anomaly in Call Volume using Keras, Python.
- Created Dashboard by using multiple Splunk data sources to compare real-time vs predicted call volume.
- Automated the process of sending out calendar invite to interested users by integrating Jira, Google Calendar API & AWS Lambda.

Software Engineer at Intello Labs | Bangalore, Karnataka, India   **Jul 2017 – Jul 2018**
- Designed and developed computer vision and machine learning modules for object classification using Python & TensorFlow.
- Won Award for designing & developing an image validation software using OpenCV & Python.
- Developed Bash script to install project dependencies which configure AWS EC2 instances for faster code integration, deployment and testing.

PROJECTS

Insight on StackOverflow Data   **Dec 2019**
- Produced meaningful insight on 42 GB of structured dataset using Google DataProc Cluster, SparkSQL API and Python Scripts (for Data Conversion from XML to JSON).

Book Inventory App   **Apr 2019**
- Developed an android app & REST webservice API that allows user to manage books inventory. Technologies used : Java, Spring Boot, MySQL, Postman, Android Studio.

Weather Android App   **Mar 2019**
- Developed an android application to provide weather information from user's current location using Openweather API and Graph View Android Data visualization library.

Network Layer Bitcoin Deanonymizer   **Dec 2018**
- Implemented a Bitcoin Deanonymizer by using Bitcoin network's broadcast protocol, Google Cloud Platform, Python & MySQL to remove the anonymity in the Bitcoin Network.

PUBLICATIONS

- Shih, Frank Y. & **Patel, Himanshu**. "Deep Learning Classification on Optical Coherence Tomography Retina Images". Proceedings of the International Journal of Pattern Recognition and Artificial Intelligence.   **Oct 2019**

ACTIVITIES

- Won Top Tier - Best in Show, Best Use of 3D Visualization/Simulation at Hack@CEWIT, Stony Brook University   **Feb 2019**
- Coursera Certification on AngularJS by The Hong Kong University of Science and Technology   **Jan 2019**
- Coursera Certification on Machine Learning by Stanford University   **Aug 2017**