Vatsal Shah

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EDUCATION

New York University Tandon School of Engineering — **Brooklyn, NY**
*Master of Science in Computer Science (**GPA:** 3.7/4.0)* — *May 2019*

- **Relevant Coursework**: Data Science, Big Data, Computer Vision, Database, Data-Structure Algorithms, Programming Languages
- **Honors**: Awarded a **Merit-based Graduate Scholarship** throughout the Graduate Program from NYU.

Gujarat Technological University L. D. College of Engineering — **Ahmedabad, India**
*Bachelor of Engineering in Computer Engineering (**GPA:** 8.4/10.0)* — *April 2017*

- **Relevant Coursework**: AI & Machine Learning, Data Mining, Distributed OS, Probability & Statistics, Software Engineering
- **Honors**: Awarded Scholarship from Ministry of Human Resource Development, Govt. of India for 4 Years. Graduated among **TOP 2%** students in the Department of Computer Science and Engineering, Gujarat Technological University.

SKILLS

- **Programming Languages**: **Proficient**: Java, Python **Working Knowledge**: SQL, PHP **Familiar**: C/C++, Haskell, Kotlin, Scheme
- **Data Science Libraries (Python)**: scikit-learn, pandas, numpy, matplotlib, plotly **(Java):** Java-ML
- **Frameworks Technologies**: Java MVC, Spring Framework, Hibernate, JPA, CodeIgniter, Java Servlet, Vert.x
- **Tools/Technologies**: **Familiar:** Machine Learning (Data Science, Computer Vision), Big Data (Hadoop, Spark, PySpark) **Working Knowledge**: Web Development (HTML, CSS, JavaScript), GIT, Filezilla, Eclipse/IntelliJ IDEA
- **Relevant Knowledge**: Design Pattern, Test Framework, Software Development Life Cycle, Network Protocols, Linux OS Unix OS
- **Certification**: Machine Learning EDU by David Rosenberg(Online), Music Theory-Practical Grade 1 from ABRSM, London (2014)

EXPERIENCE

Investopedia Inc. — **New York, NY**
*Software Engineer, Intern [**Kotlin – Vert.x – Vue.js**]* — *June 2017 – Aug 2017*

- Developed ETL Vertical for Mortgage Center which facilitates clients to real time exposure of mortgage product acc. to their needs.
- Used Kotlin and Vert.x, Asynchronous Stream processing, reactive and polyglot software development tool, for Event driven flow.
- Constructed various tools and widgets for Personalization Vertical using Vue.js for rendering quickens the pagespeed by 47.6%.

New York University Tandon School of Engineering — **Brooklyn, NY**
Graduate Teaching Assistant, Department of Computer Science and Engineering — *Jan 2018 - Present*

- Leading lab sessions, recitation lectures, and grading assignments & research papers for **Programming Languages** (CS-GY 6373).

Augmented Reality Integrated Search Engine (A.R.I.S.E) — **Ahmedabad, India**
System Developer, Head Intern (Startup) — *Nov 2016 - Apr 2017*

- Developed an object/gesture recognition android application based on deep learning algorithms for Image Processing.
- Integrated of Augmented Reality with Real-time object recognition using Google Vision (OCR) and Android Volley libraries.

Sterlite Technologies Pvt. Ltd. — **Ahmedabad, India**
*Software Engineer, Intern [**Java Spring-JPA**]* — *May 2016 - Oct 2016*

- Created an Operational & Maintenance Utility ERP system over public WiFi network to enable clients to analyze the robust system.
- Developed centralized virtual network of various peer networks for interaction with multiple clients for automated tasks dynamically.

PROJECTS

Crime Data Analysis — *Jan 2018 - May 2018*

- Cleaned and Processed Crime Data of NYC, Chicago and LA by leveraging **Big Data** tech like **Spark, Hadoop, and MapReduce**.
- Analyzed data to develop Insights which were evident with Visualization and Statistic affirmation.
- Discovered the Co-relation between Crime and parameters like Weather, Demographics, Gentrification and Budget Expenditures.

Environment Detection for Autonomous Smart Car using Computer Vision — *Apr 2018 - May 2018*

- Used the **Computer Vision** and **Image Processing** Techniques and Algorithms to help the Autonomous Smart Cars for *environment identification for real time lane and signal signage detection* using manually implemented algorithms like **Probabilistic Hough Transform**, **Template Matching**, Color Space Transformation, and Smart Selection of Region of Interest.

Healthcare Intelligence System Using Data Mining — *Dec 2016 - Mar 2017*

- Developed Data Analytics System, by implementing 4 ML algorithms that provide higher accuracy than Java Libraries, by incorporating US government data.
- Leveraged **Java Spring JPA/Hibernate** and **Android** to track users' routines and warned users against potential diseases they might suffer from; Integrated neighboring medical stores and blood-donor locator according to users' specifications.