

SIDDHANT SHAH

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EDUCATION

Khoury College of Computer Sciences, Northeastern University

Boston, MA

Master's of Science in Computer Science

May 2023

- *Relevant Coursework:* Database Management Systems, Web Development, Algorithms, Machine Learning, Data Mining Techniques, Programming Design Paradigms, Foundation of Artificial Intelligence.

NBN Sinhgad School Of Engineering, Pune University

Pune, IN

Bachelor's of Engineering in Computer Engineering

May 2020

TECHNICAL SKILLS

Languages: Java, Python, SQL (MySQL), JavaScript, HTML/CSS

Frameworks: React, Node.js, JUnit, Selenium

Libraries: Pandas, NumPy, Matplotlib, jQuery, React, Bootstrap, Redux

PROFESSIONAL EXPERIENCE

Software Engineer Intern

Oct. 2022 - Dec. 2022

SS&C IntraLinks

Waltham, MA

- Built interactive internal documentation for components in React by porting 30+ elements to an open-source framework and adapting industry-wide standards like Component Story Formats (CSF).
- Adapted current and recent frameworks with Model-View-Controller architecture such as React, Backbone JS, and composed CSS libraries using preprocessed scripting language Sass.
- Optimized VDRPro's front-end following the CI/CD methodology using tools such as Jenkins for Deployment, Bitbucket for versioning, JIRA for Kanban boards and story tracking.

Software Associate Engineer

Dec. 2020 – Aug. 2021

Globant Pvt Ltd

Pune, IN

- Created an instance of ServiceNow to make a unified platform for the company to streamline work and gather insights from operations across the world, named 'The Global Enhancement Project'.
- The initiative *saved an approximate 250+ man-hours* of effort and enabled the leadership to have a detailed view of live progress and integrated with PowerBI the project enhanced user experience, increasing viewership by at least 20%.
- Employed practices such as Rapid Deployment, and Scrum-based Agile methodology to create 50+ ServiceNow based dashboards, customized forms.

Research Intern

Sep. 2019 – Feb. 2020

Visava Labs (Delta Interiors Pvt Ltd)

Pune, IN

- Developed an expert-based system in Java that generates 100+ possible configurations for each input permutation.
- Lead the team's research in **Generative Adversarial Networks (GANs)** and its application to *3D floor plan generation* at the intersection of Architecture and Technology as well as adapted it to practical implementation.
- Designed an **Android application** that accepts various input constraints such as budget, area, etc, and displays a detailed list of material required based on the location, 2D, and 3D floor plans.
- **Secured** first round of (80%) **funding** for the startup.

ACADEMIC EXPERIENCE

Graduate Teaching Assistant

Sep. 2021 – May 2022

Northeastern University

Boston, MA

- Collaborated with the instructor and 3 other TAs to review coursework, develop the course further, and grade assignments for *Foundation's of Artificial Intelligence*.
- Advised a class of 200+ students as they studied the depths of *Computer Systems*, particularly topics such as different parts of an Operating System, C data structures, and seven layers of a file system.

Undergraduate Research Assistant

Jun. 2018 – May 2020

Pune University

Pune, IN

- Implemented 3 machine learning pipelines for Anomaly Detection in Software Defined Networking(SDN) and gave a seminar on the basic blocks of a SDN to a class of 100+ attendees.
- Peer-reviewed and published the work in IEEE. ([link](#))

Related to Software Development

- Tribe: A networking site (Earlier dubbed as FamJam):** [\[code\]](#) | *HTML, CSS, JS (Node, React)* Jun. 2022
- Engineered a website for groups of friends, enabling users to post memories.
 - Leveraged frameworks such as NodeJS for back-end, React JS for front-end, and customized CSS using bootstrap themes. Utilized BrowserRouter, Redux consistent state
 - Streamlined sign-in process with google-OAuth2.0 and used Google APIs to generate calendar events.
- Twitter clone** May 2022
- Experimented with JavaScript, React JS, Node JS and CSS frameworks such as Bootstrap.
 - Included a timeline-like page, a trending page, and a search bar along with a profile page.
 - Used GitHub: versioning, Netlify: continuous integration & deployment and Heroku: hosting the back-end.
- Dungeons and Demons** | *Java, Java Swing* Dec. 2021
- Developed a game that creates 1000+ randomized variants of maps of the dungeon.
 - Applied Model View Controller and Factory design pattern to make the code adaptive as well extensible.
 - Featured 3 levels of game adversaries: Pit, Wumpus, Moving Wumpus and 10+ types of rewards.
- Suyog Life Care's website** | *HTML, CSS, Bootstrap, JS* May 2021
- Designed, developed and tested an interactive adaptive website that increased viewership by 100%.
 - Integrated SendGrid and Wix for efficiently delivering reports to patients within 120 seconds of generation on an average as well as curated dashboards for promotional campaigns.
 - Presented a dynamically priced shopping experience option to select from the 500+ diagnostic tests.

Related to Data Science

- Topic Modeling and Extractive Summarization** | *NLTK, Scikit-learn, Numpy, Gensim* Dec.2022
- Used Non-negative Matrix Factorization, Truncated Singular Value Decomposition, Latent Dirichlet Allocation for generating top k relevant words and text summaries with rouge scores ~ 0.3 .
 - Normalized 1000+ text documents using Regex (re), Count Vectorizer, Term Frequency - Inverse Document Frequency (TFIDF) from sklearn library.
- Image convolutions** | *Python, Numpy, OpenCV, Matplotlib* Jul. 2022
- Developed a framework to apply image operations such as filtering from scratch using NumPy.
 - Dynamically detect and remove borders and outliers of the Harris map usually at the edges of images.
 - Links to all code snippets can be found on [gists @ github](#). Part of a blog available on [Medium.com](#).
- Bird Strikes in the 2000s** | *R, XML, MySQL, SQLite* Jun. 2022
- Sped up the program execution for reading and transforming data from a file using aggregates and other file reading hacks from about three hours to a few fifteen minutes [Extract].
 - A database schema adhering to 3NF, extracted data from text documents and XML files, created a formatted CSV file after transforming it using R packages: tidyR, ggplot, dplyr [Transform].
 - Finally, implemented the schema in MySQL and SQLite, uploaded the data in respective tables, created recursive queries, stored procedures, and finally fetched as well as displayed the results using graphs [Load].

PUBLICATIONS

Shah, *et. al*, **An Intuitive Study: Intrusion Detection Systems and Anomalies, How AI can be used as a tool to enable the majority, in 5G era**, [IEEE](#)

Shah, *et. al*, **A Study of Generative Adversarial Networks in 3D Modelling**, Dec 2019, Vol6:Issue-12 [IRJET](#)