

# Prateek Narendra

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## EDUCATION

State University of New York at Stony Brook - NY, USA

Aug 2019 - Dec 2020

Master of Science in Computer Science

GPA: 3.6/4.0

**Major Courses:** Distributed Systems, Network Security, Data Science Fundamentals, Analysis of Algorithms, Probability and Statistics for Data Science, Theory of Database Systems

National Institute of Technology Karnataka - Surathkal, India

Jul 2012 - May 2016

Bachelor of Technology – Information Technology

GPA: 8.2/10.0

## TECHNICAL STRENGTHS

**Concepts** Cybersecurity, Machine Learning, Data Modelling, Web Development, Algorithms, Project Management, System Design Principles, UI/UX, Distributed Systems

**Software & Tools** Java, Python, C/C++, Golang, Bash, SQL, MongoDB, JavaScript, Angular, React

## EXPERIENCE

Visa Inc., Foster City - CA, USA

May 2020 - Jul 2020

Senior Software Engineering Intern - Innovations Team

- **Visa Curbside** : Architected the Database and Middleware Design of the Application. Developed Backend modules in **Django** for User Registration, Store Management, Shopping Cart, Checkout, Payment processing, Store and Item Recommendation System








Visa Inc., Bangalore, India

Jul 2016 - May 2019

Software Engineer - Merchant Processing and Cybersecurity

- **API DAST** : Developed modules in **Python** and **Java** to verify SSL requirements, test Message Level Encryption, SQL Injection and OS Command Injection vulnerabilities in external APIs to enforce Visa Cybersecurity requirements and reduce average testing time for Penetration Testers
- **Apeiron** : Developed modules for File Upload, Business Planning and User Access Control using **Spring Boot** and **Angular**. Reduced average response time of the application used by our business analysts by integrating Server Side caching.
- **Handover Automation Tool** : Proposed and devised a tool to aggregate all the error reports from emails, alerts from **Splunk** and daily transaction volume dashboard from **Grafana** into a single report for upper management.

## PROJECTS

- **Mozilla Web Tracker Analysis (Sponsored by Mozilla)**   
Analyzing the performance and efficiency of Firefox's Tracking Protection in blocking Webpage Ads without breaking website functionality on the Top 10000 Most Visited Websites by performing **Computer Vision** based Automated Screenshot Analysis and Monkey Testing
- **Graph Based Recommendation System**    
Designed a system to recommend other users to follow based on semantic information extracted from generated content and the underlying social graph structure to identify closely connected groups of users (cliques). Implemented clique algorithms to correct the interested topics a user is interested predicted by the ML models.
- **Replicated State Machine**   
Implemented RAFT, a consensus algorithm, that manages a replicated log across multiple servers. Implemented in **Golang** which includes Leader Election, Log Replication, Persistence in case of failure.
- **DevAuth - Device Based Federated Login (ETHOS Lab)**    
A federated login system, developed using **Django** and **React Native**, utilizing the user's phone as an authorization server for authentication/authorization. The system utilizes **OpenID** interfaces for easy integration by third party clients.
- **Evaluation of various Dimensionality Reduction Algorithms**   
Devised methodologies for comparison of various Linear and Non-Linear dimensionality reduction techniques to explore their applications in data visualization and information retainment for processing. Researched and developed different qualitative and quantitative metrics for the evaluation of **PCA**, **UMAP** and **t-SNE**.