

Somya Brijesh Shastri

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EDUCATION

University of Southern California

Master of Science in Computer Science

Courses: Algorithm Analysis, Data Mining, Web technologies, Database Systems, Natural Language Processing, Security Systems, Information Retrieval and Web Search Engines

Los Angeles, CA

Aug 2022-May 2024

Vellore Institute of Technology

Bachelor of Technology in Information Technology

Courses: Data Structures and Algorithms, Object Oriented Programming, Operating System, Artificial Intelligence, Network and Information Security, Software Testing, Machine Learning, Cloud Computing, Computer Networks

Vellore, India

Jun 2016-Jul 2020

TECHNICAL SKILLS

Language: Java, Python, Swift, SQL, HTML, CSS3, JavaScript, TypeScript, PHP, C++, MATLAB

Tools: Postman, IntelliJ, Xcode, Apache Maven, Jenkins, Git, Bitbucket, Jira, Splunk, Apache JMeter, Microsoft Office, SPSS

Frameworks: AngularJS, React, Node.js, Spring, Oracle database, AWS, GCP, WEKA, Bootstrap, Flask, Docker, Express

WORK EXPERIENCE

Visa Inc. | Software Engineer

Bangalore, India | Oct 2020-Jul 2022

Collaborated cross-functionally to provide cryptographic solutions for data protection employing agile methodology

- Designed card **pin translation** functionality with REST API to ensure customer pins are securely transferred from payment devices to merchant banks, in Spring
- Created a system to sign and verify cryptographic keys to onboard **Ethereum** transactions on Visa's platform and to periodically refresh these keys stored in memory, utilizing Java Cryptographic Extension
- Enhanced in-house **Asymmetric Key Tool** to accept, validate, and fetch details from a P12 file and insert RSA keys in database to enable client certificate sharing; utilized Bouncy Castle API
- Built a dynamic **POM compare tool** in Java to compare different versions of Java ARchives (JARs) stored in POM files for version consistency, thereby reducing more than 100 manual person-hours
- Conducted multiple code reviews, code analysis, and bug fixes with SonarQube, source code control with Bitbucket, and log analysis using Splunk

ACADEMIC PROJECTS

Named Entity Recognition (NER) with BiLSTM and GloVe Embeddings

Aug 2023-Dec 2023

- Optimized BiLSTM model for NER on CoNLL-2003 corpus, improved through GloVe embeddings
- Constructed neural networks using PyTorch, TensorFlow, and sci-kit-learn
- Increased validation precision by 9.7% to 90.2% and F1 score by 12% to 90.7%

Event Ticketing System | [Website](#) | [Demo](#)

Jan 2023-May 2023

- Developed an iOS application in Swift and website in AngularJS and NodeJS, leveraging Ticketmaster APIs
- Integrated with social media and interactive maps for enhanced user experience
- Deployed in AWS EC2 and GCP

Detection of Threats in Cloud Data Sharing

Jan 2020-May 2020

- Contrast KNN, Naïve Bayes, Decision Tree, and Logistic regression on KDD dataset
- Voting Classifier performed best with 84% precision

Online ASL Detection System

Jan 2019-Apr 2019

- Created ASL alphabet gesture classifier for text translation on Kaggle Sign Language MNIST dataset.
- Used Convolution Neural Networks and libraries such as TensorFlow, sklearn, and pandas
- 96.04% accuracy for static input, 75.47% for dynamic input

PUBLICATIONS

- Analytical Comparison of Machine Learning Techniques for Liver Dataset at International Conference on Innovations in Power and Advanced Computing Technologies, i-PACT-2019 | [Link](#)

LEADERSHIP AND INVOLVEMENT

- Won April Innovation Month competition held at site level in Visa Inc. and Google Developers Group 12-hour hack-a-thon in undergrads, developed website to help women in rural areas to make lives easier
- Organized weekly meetings and contests, led club of 50 members as Vice President of Education of Toastmasters
- Arranged monthly sessions as core committee member of Visa Women In Tech and mentored 50 underprivileged girls as core committee member of Visa Corporate Social Responsibility activities with Vidya Poshak NGO