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# UTKARSH GARG

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## EDUCATION

### **Stony Brook University, Stony Brook, New York**

**Aug 2019 – Dec 2020\***

Master of Science in Computer Science | **CGPA: 3.67/4.00**

Coursework: Data Science, Computer Vision, NLP, Analysis of Algorithms, Probability for Data Science, Visualization, Databases

Graduate Teaching Assistant for Data Structures (CSE- 214) under Prof Ahmad Esmaili.

### **IIIT Bangalore, India**

**Sept 2018 – Aug 2019**

Post Graduate Diploma in Full-Stack Software Development (Upgrad/Online)

### **SRM University, Kattankulathur, Chennai, India**

**Aug 2011 – May 2015**

Bachelor of Technology in Computer Science Engineering | **CGPA: 9.52/10**

Coursework: Data Structures & Algorithms, AI, Data Mining, Image Processing, Operating Systems, Network Security

## EXPERIENCE

### **Software Engineer**

**VISA Inc, Bangalore, India**

**Apr 2017 – Jul 2019**

- Streamlined Identity & Access Management systems, by optimizing usability and developing over OpenID (Forgerock), OAuth and Federation related workflows for a **Tier-0 application (VISA Online)**, serving gateway to **100+ services** in the background.
- Improved features for overhaul of user login flows and service entitlement pipeline, adding 2FA workflows, easing resource creation with smart suggestions and **throttling functionality test coverage to 80%** by improving error/exception visibility.
- Developed a stack test tool to test end-to-end flow from proxy-layer to auth to landing page for the app, thereby helping assess server health and performance bottlenecks of the application, **saving 70% of the manual effort hours**.
- Presented PoC for “Visa Exclusive Marketplace”**, a loyalty-driven project aimed at incentivizing existing VISA cardholders boost card payments, in return for exclusive offers/rewards, using VISA APIs. **Selected for finals in site-level hackathon**.
- Leveraged **Facebook’s OAuth2.0 auth-protocol and Graph API** using Sails.js, for profiling cardholders’ social media profiles, to extract their interests/likes for personalized offers.

### **Systems Analyst**

**VISA Inc, Bangalore, India**

**Jul 2015 – Mar 2017**

- Managed component provisioning for 250+ Linux/Windows VMs, handling configuration and deployment of infra & services.
- Visualized machine generated big data through **Splunk dashboards** to check overall performance of various applications.
- Formulated scripts to automate workflow of server remediation, **reducing manual time by 50 % and human errors by 80%**.
- Worked actively on critical SSL certificate upgrades and automated scripts to check certificate expiry.

### **Product Development Fellow | Remote**

**Hasura, Bangalore, India**

**Nov 2017 – Feb 2018**

- Implemented **conversational AI bots** for Facebook messenger platform. Link: <https://hasura.io/hub/users/utkarsh/>
- Designed and deployed voice skills for Amazon Alexa. **Gathered over 200+ activations within a month of Go-Live**.
- Gained hands-on experience in microservices & K8’s clusters, while working with **CNCF (Cloud-Native) systems**.

## PROGRAMMING SKILLS

- Languages & Databases : Java, Python, Javascript, C/C++, Shell Scripting, HTML5, CSS3, MongoDB, PostgreSQL, LDAP, DB2
- Platforms & Tools : AWS, GCP, Google Colab, Docker, Tableau, Jenkins, Git, JIRA, Slack, IntelliJ, Eclipse, PyCharm, LaTeX
- Frameworks & Libraries : Spring Boot, Hibernate, PyTorch, TensorFlow, Keras, Node.JS, Selenium, Ajax

## PROJECTS & RESEARCH

- Retail Data Sales Analysis (Sklearn/Pandas)**: Performed EDA on 1.7M records for hardware store. Used Apriori for market basket analysis, RFM for segmenting customers, T-SNE for grouping similar products and ARIMA modelling for time series forecasting.
- Restaurant Finder**: Delivered a full-stack application using Spring boot and React.JS backed by PostgreSQL DB. Configured REST endpoints using Hibernate ORM and SwaggerUI.
- Pose Detection (Pytorch)**: Implemented PoseNet model on Human36M dataset to predict 3D poses from 2D sensor data. Implemented Kalman filter to correct noisy measurements from faulty sensors, with an average accuracy of 82%.
- Unified Summarization of Scientific Papers (NLP)**: Extended existing approaches to implement a unified model, over Abstractive & Extractive ensemble, using bidirectional LSTM. Evaluated on ROUGE scores, with 43.08 recall.
- Convolutional Neural Network (Pytorch | TensorFlow | OpenCV)**: Designed a CNN model from scratch, to perform 16-way image classification, highest accuracy observed was 92% with fine tuning of Alex Net.

## AWARDS & CERTIFICATIONS

- DevOps Certified** | Edureka | License: <https://edureka.co/verify> | ID: BTTVBVTA
- ITIL Certified** | APMG International | License: ITIL/2000603220
- Go Beyond** award for automation work at VISA Inc
- Outstanding Performance** award at HP India, Ltd. during HPES Training cum Internship (Summer’ 2013)
- Immersive Data Science Program** | Greyatom | License: <https://www.credential.net/w95pzloj>
- Neural Networks and Deep Learning by deeplearning.ai** (Instructor: Andrew Ng) | Coursera | License: 93XU2LHY83A9
- Developing Applications with Google Cloud Platform Specialization** | Coursera | License: A6XDCT7WBWHK