Utkarsh Garg
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EDUCATION

- **Stony Brook University** Stony Brook, NY
  Master of Science in Computer Science; GPA: 3.74* *Aug. 2019 – Dec. 2020*

- **SRM University** Chennai, India
  Bachelor of Technology in Computer Science; GPA: 3.81 (9.52/10.0) *Aug. 2011 – July. 2015*

EXPERIENCE

- **Sony PlayStation** San Diego, CA
  Software Engineer Intern *June 2020 - Aug 2020*
  - **Vendor-Portal Service**: Responsible for creating an abstraction service from scratch, to provide vendor-secrets, removing the tight coupling from service to data source. Leveraged AWS Suite and Spring Boot.
  - **Chargeback API**: Implemented an orchestration flow to serve as a state machine for Chargeback functionality for Payment Gateway.

- **VISA Inc** Bangalore, INDIA
  Software Engineer *Apr 2017 - Jul 2019*
  - **Identity & Access Management**: Streamlined IAM systems, by optimizing usability, developing over OpenID (Forgerock), OAuth and Federation related workflows for a Tier-0 application, serving gateway to 100+ services.
  - **Enrollment Workflows**: Redesigned features in .NET for user login flows and service entitlement pipeline, easing resource creation with smart suggestions and throttling test coverage to 85%+.
  - **Stack Test Tool**: Developed an automated performance monitoring tool to test end-to-end flow for the app, and assess server health/performance bottlenecks of the application, saving 70% of the manual effort hours.

  Systems Analyst *Jul 2015 - Mar 2017*
  - **Dev Environment**: Wrote automation scripts for alerts monitoring and system health checks, also setup IFTTT type rules to take proactive actions based upon encountered issues.
  - **Jenkins Integration**: Managed 250+ Linux/Windows VMs for troubleshooting and deployment of infra/services
  - **Splunk Dashboards**: Visualized machine generated big data to check overall performance of various applications

- **Hasura** REMOTE
  Product Development Fellow *Nov 2017 - Feb 2018*
  - **AI Chatbots & Alexa Skill**: Implemented conversational AI bots for Facebook messenger platform. Also deployed voice skills which gathered over 200+ activations within a month of Go-Live.
  - **Cloud-Native Apps**: Gained hands-on in microservices & K8's clusters, while working with CNCF systems.

PROJECTS

- **Retail 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 model for time series forecasting.
- **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.
- **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%.
- **Scene Matching and Object Recognition (OpenCV)**: Performed scene stitching using SIFT(Scale Invariant Feature Transform) features with Laplacian Pyramids.
- **Passwordless Ultrasonic Auth (Best Security Hack @CEWIT 2020)**: A new factor for passwordless auth using ultrasound for data transfer. Uses QuietJS library which is an audio QR implementation for web browsers.

PROGRAMMING SKILLS

- **Languages**: Java, Python, Javascript, C++ **Technologies**: AWS, Docker, Kubernetes, Jenkins, Tableau, Git

- **Frameworks**: SpringBoot, Flask, TensorFlow, Pytorch, Keras, OpenCV **Databases**: MongoDB, SQL, LDAP