# in https://www.linkedin.com/in/utk1801/

#### **UTKARSH GARG**

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# http://utk1801.github.io/

#### **EDUCATION**

### Stony Brook University

Stony Brook, NY

Master of Science in Computer Science: GPA: 3.74/4

Aug 2019 - Dec 2020

Coursework: Data Science, Distributed Systems, Algorithms, Databases, Computer Vision, NLP, Visualization Teaching Assistant: Data Structures in Java (Spring'20)

## SRM University

Chennai, India

Bachelor of Technology in Computer Science; GPA: 9.52/10

Aug 2011 - Jul 2015

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

#### WORK-EXPERIENCE

#### Sony PlayStation

San Diego, CA

Jun 2020 - Aug 2020

Software Engineer Intern

- o Vendor-Portal Service: Designed a microservice on top of payment gateway that provides configuration to deliver a route to different vendors hosted on the gateway. Leveraged **AWS Suite** and **Spring Boot**.
- o **Chargeback API:** Proposed an *orchestration flow* to serve as a state machine for 'chargeback' functionality.

#### Bangalore, India VISA Inc

Software Engineer

Apr 2017 - Jul 2019

- o Identity & Access Management: Streamlined IAM systems, by optimizing usability, developing over *OpenID* (Forgerock), **OAuth** & **Federation** related workflows for a Tier-o 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: Facilitated 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

- o Dev Environment: Authored automation-scripts for alert-monitoring and health checks; also setted up IFTTT type rules to take **self-healing** actions based upon encountered issues, reducing manual effort by 50%.
- **Jenkins Integration:** Managed 250+ Linux/Windows VMs for troubleshooting & **deployment** of infra/services.
- Splunk Dashboard: Visualized machine generated big data to check overall performance of various applications

#### • Hasura Remote

Product Development Fellow (Part Time)

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.
- o Cloud-Native Apps: Gained hands-on in *microservices* & K8's clusters, while working with *CNCF systems*.

#### **PROJECTS**

- Recovering Visual Encodings from Chart Images: Developed an end-to-end text analysis pipeline that recognizes the text content using OCR, and classifies their role in the chart (e.g., bars, lines, points, or areas) using CNN and AWS Rekognition API (Ongoing project under Prof. Klaus Mueller at Visual Analytics and Imaging Lab)
- Passwordless Ultrasonic Auth: Researched on a new factor for authentication using ultrasound for data transfer. Used QuietJS library, an audio QR implementation for browsers. Won Best Security Hack @CEWIT'2020.
- Retail Sales Analysis: Performed EDA on 1.7M records for hardware store. Used Apriori for market basket analysis, **RFM** for segmenting customers, **T-SNE** for grouping products & **ARIMA** model for time series forecasting.
- Visa Exclusive Marketplace: Designed web-app for loyalty-driven project aimed at incentivizing VISA cardholders boost card payments, against exclusive offers/rewards, using VISA APIs, Facebook's OAuth2.0 auth and Graph API.
- D3 Visualization: D3 Dashboard with *Flask* backend to assess impact of 'Novel Coronavirus' on the world.

#### PROGRAMMING SKILLS

Languages: Java, Python, Javascript, C++ Technologies: AWS, Docker, Kubernetes, Jenkins, Tableau, Git Databases: SQL, LDAP, MongoDB, PostgreSQL

Frameworks: Spring Boot, Flask, TensorFlow, Pytorch