

# Tejas Gajare

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## EDUCATION

**Syracuse University** - College of Engineering & Computer Science, Syracuse, NY Aug 2021 – May 2023  
*Master of Science, Computer Science (3.55 / 4.0)*

- Course work: Database Management Systems, Operating Systems, Computer Architecture, Design and analysis of Algorithms, Natural Language Processing, Structured Programming and Formal Methods

**Savitribai Phule Pune University** - Pune, India May 2015 - May 2019  
*Bachelor of Engineering, Computer Engineering (3.54 / 4.0)*

- Finalist for ACM International Collegiate Programming Contest (ICPC) Asia Regionals 2019 (Gwalior-Pune)
- Ranked 6th in country for ABU Robocon (India), 2017 - Deployed Motion tracing on Robot to map trajectory of a Frisbee

## SKILLS

**Languages:** Python (*proficient, 5 years*), C++ (*proficient, 3 years*), SQL (*proficient, 3 years*), Java (*intermediate, 2 years*)  
**Web:** HTML (*proficient, 4 years*), JavaScript (*proficient, 4 years*), React (*intermediate, 2 years*), VueJS (*intermediate, 2 years*)  
**Frameworks:** Git, Spring Boot, Django, DjangoRest, Flask, Angular, Android SDK, OpenCV, Docker, TensorFlow, Keras  
**Databases:** Microsoft SQL Server, PostgreSQL, Firebase, AWS RDS

## WORK EXPERIENCE

**Software Engineer Intern, Hewlett Packard Enterprise** – New York May 2022 – August 2022

- Upgraded existing REST APIs to adhere to HPE's internal HTTP standards allowing interoperability among different microservices and enhancing security
- Modularized CI/CD for HPE's Rave platform bringing down the build time to 2 mins; improvement of 96%

**Backend Engineer (Core Services and Infrastructure), Grouped** – Syracuse, New York January 2022 – April 2022

- Led the development of core microservices and cloud infrastructure of the social media platform at Grouped
- Designed and built a three-tier, multi-AZ infrastructure running Spring boot and Flask microservices on AWS ECS
- Increased RPS from 150 to 700 by horizontally scaling microservices to 5 Fargate instances and attaching AWS load balancer across multiple ECS targets

**Software Engineer, Yardi** – Pune, India August 2019 - April 2021

- Collaborated with a team of 3 to design tool for generating data scrubbing templates, allowing clients to comply with CCPA & GDPR; improved data scrubber to incorporate complex hierarchical database relationships using SQL
- Devised algorithm in .NET to predict database fields that could store sensitive information and respective scrub update value reducing database field selection time by 50%
- Developed Harbor Management System using .NET and Microsoft SQL Server, facilitated lease tracking via dashboard statistics increasing leasing efficiency by 40%

**Software Engineer Intern, Persistent Systems** – Pune, India April 2018 - July 2018

- Developed an Android application using Java to calculate physical dimensions of apartments without any external equipment
- Implemented OpenCV algorithm to detect fixed sized markers in image to calculate perceived dimensions by applying geometric similarity; leveraged optimizations in C++ and as a result, number of frames per second (FPS) increased by 80%
- Completed project under guidance of 2 vertical heads to understand and provide solutions for customer specific requirements

## SELECTED PROJECTS

**A Torch Without Light: Advanced Night Vision** - *Publication*

- Built mobile app to capture images in extreme low-light conditions and retrieve high quality image from a CNN implemented using TensorFlow; low-light images were amplified by up to 300 times with Noise Reduction
- Trained model on dataset of 450 RAW images shot in low-light conditions and respective ideal lighting conditions; pre-trained model from reference paper was also used
- Integrated OkHttp Multipart Upload Lib with Android's Camera2 API to capture RAW images on mobile and transfer to remote Flask server; average total processing time was under 30 seconds

**Smart Vehicle - Road Sign Translator**

- Constructed an application for vehicle drivers to deliver real-time translations of the road signs in their native languages; captured road signs from a video feed provided by an onboard camera
- Extracted text with OpenCV + Tesseract OCR and converted to speech using Google TTS and informed driver via speakers
- Decreased frame processing time by localizing the Region of Interest down to 45%