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AJINKYA GHADGE

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EDUCATION

University of Massachusetts Amherst — Amherst, MA
College of Information and Computer Sciences — **Expected Graduation May 2021**
Master of Science in Computer Science

Shivaji University — Kolhapur, India
Bachelor of Technology in Computer Science and Engineering. GPA: 3.86/4.00 — **Jul 2012 - May 2016**
Awarded Certificate of Merit and Scholarship

EXPERIENCE

Software Development Engineer — **Research Centre Imarat, Hyderabad** — **Apr 2018 – Nov 2018**
Research Project

- Developed a Python program that increased the frames captured per second(fps) on Raspberry Pi 3 by 370%
- Created a dataset from Terabytes of Infrared and RGB image data for object detection and tracking by using suitable preprocessing, synchronizing, and annotation used by over 5 teams
- Created RESTful Web Application using the Python-Flask framework for deploying Caffe model
- Developed Linux device driver for the Nvidia Jetson TX2 platform, for interfacing with a custom camera

Software Engineer — **Persistent Systems, Pune** — **Nov 2016 – Feb 2018**
Forex Settlement and Netting

- Developed a Java tool used by over 50 testers to orchestrate real-world FOREX transactions
- Prototyped Test-Driven Development System which performed Full-Stack regression testing using Jenkins, Appium, RestAssured, Junit, Maven and Selenium Grid that led to the adoption of CI/CD in the project
- Migrated existing XML over HTTPS inter-process communication to Message Queue for improved fault tolerance and scalability over a large amount of transactional test data
- Refactored test scripts to run using Selenium Grid for distributed and concurrent execution of test cases achieving a reduction in the test effort by 48%

Python Consultant, Intern — **Harman International, Pune** — **Sep 2016 – Nov 2016**

- Developed Python interface to replace legacy commands in a leading 3D modeling software. Used profiling and foreign function interfacing for interfacing and improving performance

PROJECTS

- **Indoor Scene Classification using Scene Parsing and NLP** — **Oct 2019 – Ongoing**
  Improving classification accuracy of a scene by using context-based word embeddings for objects, parts, materials, and texture retrieved from the scene image
- **Evaluation of Energy-Efficient Devices and CNN Architectures for Real-Time Inference** bit.ly/2kvv2En
  Independent Research Project — **Oct 2018 – Jul 2019**
  Determined suitable CNN architectures and embedded devices (Intel Movidius, Jetson Tx2, Raspberry Pi) for detection/classification at more than 24FPS, consuming lesser watts per fps
- **Dustbinator: A waste sorting receptacle using deep learning** — **Jul 2015 – Mar 2016**
  Undergraduate Course Project (*Best Project, University Level*)
  Developed an image classifier with 89% validation accuracy using Caffe framework, to classify an image of trash as biodegradable or non-biodegradable for five common categories using transfer learning
- **Licence Plate recognition using Raspberry Pi** bit.ly/2mo6AoQ — **Jul 2016 – Aug 2016**
  Prototyped license plate recognition system using Google Vision API and Python Regular Expressions

TECHNICAL SKILLS

- Python (3 years), Java (4 Years), SQL (4 Years), Linux (3 years), C++, GIT