

1040 North Pleasant Street
264 Puffton Village Apartments
Amherst, MA, 01002

AJINKYA GHADGE

(413) 522-5217
aghadge@umass.edu
<https://ajinkyaghadge.github.io>

EDUCATION

Amherst, MA	University of Massachusetts Amherst	Expected graduation: May 2021
Master of Science in Computer Science, GPA 3.72/4.00		
<ul style="list-style-type: none">Coursework: Database Design and Implementation, Operating Systems, Machine learning, Neural Networks, Applied Statistics, Machine learning in the Real World, Software Engineering, Secure Distributed Systems		
Kolhapur, India	Shivaji University	Jul 2012 – May 2016
Bachelor of Technology in Computer Science and Engineering, GPA 3.86/4.00		

EXPERIENCE

Pune, India	Persistent Systems	Nov 2016 – Feb 2018
Software Engineer		
<ul style="list-style-type: none">Developed Java CLI tool used by 20+ people to orchestrate real-world FOREX transactionsImproved fault tolerance and scalability by migrating existing XML over HTTPS inter-process communication to Message Queue in Java for large amount of transactional dataRefactored, profiled and analysed code for ~4x faster execution by interfacing Python/C using CtypesMigrated legacy C methods to Python and collaborated with delivery team to draft updated documentationAchieved ~3x faster execution of scripts by refactoring Java code to run concurrently on distributed systemSpearheaded initiative to prototype highly automated and integrated Full-Stack regression testing using Java, Selenium, Jenkins, Appium, RestAssured, Junit for better reporting and CI/CD migration with 4 peersCollaborated with 2 other teams on tools development and component integration over daily scrum meetingVolunteered and trained 2 new team members in product, domain knowledge and weekly team workflow		

TECHNICAL EXPERIENCE

Projects

- Event stream processing to find and explain anomalous behavior in Hadoop cluster** (Jan 2020 – April 2020)
 - Implemented Complex Event Processing to determine events causing **cluster imbalance, bottlenecks and faults** by analysis of data generated in **hadoop** cluster logs for **3 different** workloads
 - Transformed **logs to 1200+ attributes** time-series data to implement algorithm determining the cluster faults and reduced number of attributes for faulty explanation by **90.5%**, reducing fault detection time
- Dataset generation pipeline from raw data for Machine learning Inference** (March 2018 – July 2019)
 - Applied threaded polling and memory mapping to improve image frame capture to **200+** frames per seconds
 - Implemented python script to automate dataset generation for **~10TB** of Infrared and RGB image using multiprocessing and binary threshold
 - Built **RESTful Web Application** using the Python-Flask framework for deploying machine learning model
- Scenery classification using TF-IDF, Scene Parsing and Natural Language Processing** (Oct 2019 – Dec 2019)
 - Compared information retrieval methods, word embeddings, and Neural networks for mapping correlation between object labels and scenes for refining classification accuracy of scenes by **82%**

AWARD(S) AND VOLUNTEER WORK

- Certificate of Merit and Scholarship (Academic Year 2013-2014)

Languages and Technologies

- Python (4 years); Java(4 years); C; SQL; JavaScript; SciKit; Pytorch; Numpy; PostgreSQL
- Visual Studio; Microsoft SQL Server; Eclipse; Google Cloud Platform, AWS EC2, Hadoop