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AJINKYA GHADGE

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EDUCATION

Amherst, MA **University of Massachusetts Amherst** **Expected graduation: May 2021**

Master of Science in Computer Science, **GPA 3.86/4.00**

- 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

- **Developed Java CLI tool** used by **20**+ people to orchestrate real-world FOREX transactions
- **Improved fault tolerance** and **scalability** by migrating existing XML over HTTPS **inter-process communication** to **Message Queue** in **Java** for large amount of transactional data
- **Refactored**, **profiled** and **analysed** code for **~4x faster execution** by interfaceing Python/C using Ctypes
- **Migrated legacy C methods** to Python and **collaborated** with delivery team to draft updated **documentation**
- **Achieved ~3x faster execution of scripts** by refactoring Java code to run concurrently on **distributed system**
- **Spearheaded 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** peers
- **Collaborated** with **2** other teams on tools development and component integration over daily scrum meeting
- Volunteered and **trained 2** new team members in product, domain knowledge and weekly team workflow

TECHNICAL EXPERIENCE

Projects

- **Event stream processing to find and explain anamolous 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 generate **~10TB of Infrared and RGB image datasets** 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