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SAI PAVITRA DANGATI

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EDUCATION

Amherst, MA **University of Massachusetts, Amherst** **January 2019 – Present**
GPA: 4/4

- Master of Science in Computer Science
- Related Coursework: Machine Learning, Advanced Algorithms, Data Visualization and Exploration, Natural Language Processing, Reinforcement Learning, Computer Vision, Databases and Design, Applied Statistics.
- Grader Assistantship: Grader for Advanced Algorithms for Fall 2019, Approximation Algorithms for Spring 2020
- Graduate Technical Assistant at Department of Summer Programs: Responsible for maintaining the website, developing the Summer Programs App, maintaining databases and CRM tools, automating application processing reducing hours spent on one application to seconds.

Warangal, India **National Institute of Technology** **Aug 2013 – May 2017**
GPA: 8.61/10

- Bachelor of Technology in Computer Science and Engineering, graduated First Class with Distinction
- Related Coursework: Machine Learning, Cloud Computing, Data Warehousing and Advanced Data Mining, Data Structures, Object Oriented Design, Probability and Statistics, Linear Algebra, Database Management, Software Engineering, Design principles, Algorithms Design and Analysis.
- Coordinator, Event Conduction and Coordination for cultural fest Springspree

EMPLOYMENT

Associate Software Development Engineer **Tesco** **July 2017 – January 2019**

- Designed and developed a prediction algorithm for a unique problem faced by Tesco called the 'Gap Scanning in Stores' achieving 93% accuracy. This data driven prediction solution reduced manual labor across 3000+ stores and reduced operational cost.
- Co-authored a paper titled 'One-hour delivery - Process and Role of Technology' within Tesco.
- Product Induction and Master Data Management: Developed on modules such as Metadata Management, User Access Management, Data Quality, Product Numbering and Product Induction & Data Management Core Module.
- Lead the Scrum team, acted as point of communication across technical and product teams, translated business requirements into technical requirements and also refined them with possible solutions on a daily basis.
- Proposed event-based messaging for communication across systems and developed the core module using NodeJS and Apache Kafka.
- Designed and developed, from scratch, an automated Integration Testing Suite across all modules which was tailored into the CI/CD pipeline that reduced functional errors during the UAT Testing.
- Won two 'Star of the moment' recognition awards for showcasing diverse skillset, responsiveness and agility.
- Ranked sixth out of seventy teams in Tesco Global Hackathon 2018.

Summer Intern, Technology **Goldman Sachs** **May 2016 – July 2016**

- Analyzed and documented in detail the various workflows for the quarterly and yearly reporting to the Bank of Japan, identified causes of delays and errors and proposed solution for each
- Automated manual tasks and checks within the workflow process by using RESTful services implemented in their proprietary language. This reduced human errors drastically and reduced the delay time of weeks to minutes for the reporting process.

PROJECTS

K-Most influential users using PageRank Algorithm in a resource constrained network, Prof Rashmi Ranjan Rout (*NIT Warangal*)

- The algorithm determines set of partial users, partial relationships and maintains a partial fresh copy of network locally such that the influence of the partial network closely resembles that of the original network. Implemented using PySpark achieving accuracy of 83%.

An analysis of Transfer Learning for Text-to-SQL

- Using the SPIDER dataset, performed analysis of transfer learning on the baseline SQLNet(text-to-sql model) by retraining on individual databases. Achieved 1-2% more accuracy over the baseline depending on the database and the text-sql queries present for each.

Person Matching in Photo collection

- Given a query image, to retrieve images matching the individual from a gallery. Face detection, feature extraction and matching using similarity metric.

Off-Policy Policy Evaluation and Policy Improvement in Reinforcement Learning

- Implemented HCOPE to mimic a real-world scenario modelled by an unknown MDP like a medical application or business application, where deploying a policy worse than the current one would be dangerous or costly.

Preserving facts in Abstractive Summarization, With Goldman Sachs and Prof. Andrew McCallum*(Ongoing)*

- Developing a unique end-to-end model to preserve the factual accuracy in large financial domain summarization tasks under a resource constrained setting.

SKILLS

- **Programming Languages**: C/C++, Core Java, Python, Node JS, JavaScript, HTML, CSS, PHP, Unix, MongoDB, SQL, PL/SQL
- **Frameworks & Libraries**: Scikit-learn, PyTorch, REST API, Cucumber, Tableau, Hadoop, Apache Kafka, Elastic Search, APIGEE, Jenkins, GitHub, Docker, AWS Basics
- **Soft Skills**: Leadership and Organizational Skills, Effective Communication
- **Key Technologies**: Machine learning, Data mining, analysis and visualization, Data collection, extraction, reduction and processing, Data modelling, Database management, Natural Language Processing, Computer Vision, Software engineering, Web services, Application backend, Agile/Scrum methodologies, Performance and scalability optimization, Logical reasoning and analytical thinking