Poonam Kumari

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PROFESSIONAL SUMMARY

Ph.D candidate in Computer Science with a strong foundation in data-intensive computing, data analysis, and code reusability. Eager to apply extensive research and teaching experience to a challenging role, leveraging expertise in conducting user studies, mining diverse datasets, and developing innovative algorithms. Proficient in Python, SQL, NLP, and data visualization techniques. Passionate about bridging technology and user experience, with a keen interest in staying abreast of industry advancements. Ready to contribute fresh insights and a dynamic approach to data-driven projects and collaborative teams.

EDUCATION

UNIVERSITY AT BUFFALO PhD in Computer Science
Expected February 2024 | Buffalo, NY

UNIVERSITY AT BUFFALO MS in Computer Science
June 2018 | Buffalo, NY

BIRLA INSTITUTE OF TECHNOLOGY AND SCIENCE MS in Software Systems
December 2013 | Rajasthan, India

SKILLS

Python, SQL, JavaScript, PostgreSQL, HTML, CSS, Java, NLP

EXPERIENCE

UNIVERSITY AT BUFFALO | Lecturer
Data Intensive Computing, Introduction to Programming
May 2023 - Present | Buffalo, NY

- Conducted engaging lectures on Data Intensive Computing (DIC) topics for a class of 64 students, ensuring comprehensive understanding and knowledge retention.
- Developed and executed detailed course syllabi, lesson plans, and assessments, fostering a structured and conducive learning environment.
- Offered guidance and mentoring to students, facilitating their academic growth and addressing individual learning needs effectively.
- Orchestrated and supervised class projects, promoting teamwork, practical application of knowledge, and innovative problem-solving skills.
- Maintained up-to-date knowledge by tracking the latest developments in the field, incorporating cutting-edge advancements into the curriculum to provide students with relevant and industry-aligned education.

UNIVERSITY AT BUFFALO | Research Assistant
August 2016 – August 2023 | Buffalo, NY

- Conduct extensive research data collection through user studies on Amazon Mechanical Turk and mining GitHub repositories.
- Utilize Python for cleaning and in-depth analysis of collected data with over 10 million rows, ensuring data integrity and reliability.
- Apply Python abstract syntax tree techniques to extract meaningful features from complex datasets, enhancing analytical depth.
- Conduct advanced similarity searches using natural language processing and KNN algorithms, ensuring precise data matching and interpretation.
- Expert in visualizing research findings through graph representations, facilitating effective communication of analytical results to address research queries.

UNIVERSITY AT BUFFALO | Teaching Assistant
August 2015 – May 2016, Fall 2021 | Buffalo, NY

- Proficiently designed and delivered engaging lab recitations, enhancing students understanding of complex topics in data structures and programming fundamentals.

- Responsible for grading assignments, projects, and exams, ensuring fair and constructive feedback to foster student growth and learning.
- Diligently resolved student queries during office hours, providing valuable guidance and support to enhance their comprehension and confidence in the subject matter.

TESCO HINDUSTAN SERVICE CENTER | Functional Analyst
September 2013 – August 2015 | Bangalore, Karnataka, India
- Reduced overall incidents by 50% through root cause analysis and automation of manual pain points, optimizing workflow processes.
- Automated daily reconciliation process, enhancing operational efficiency.
- Effectively resolved incidents, ensuring minimal impact on customer experience.
- Conducted impact assessments for bank changes and facilitated their successful delivery.

TESCO HINDUSTAN SERVICE CENTER | Senior Software Engineer
August 2010 – August 2013 | Bangalore, Karnataka, India
- Oversaw daily data load operations and provided progress reports to senior management.
- Conducted in-depth analysis and visualization of day-to-day issues, identifying root causes.
- Developed .Net and SQL applications to automate data load processes, leading to an 80% reduction in daily issues.
- Mentored new team members via knowledge transfer sessions

RESEARCH PROJECTS

LOKI: Discovering unionable tables through mapping| Python, Java, NLP, LLM, Data Mining, Postgresql
Communicating Data Quality| Angular, Javascript, MongoDB, Amazon Mechanical Turk

AWARDS

2015   Dean's Fellowship, University of Buffalo
2012   Microsoft Specialist: Programming in HTML5 with JavaScript and CSS3
2012   Microsoft certified professional
2010   Sun certified Java Programmer

PUBLICATIONS

| DataSense: Display Agnostic Data Documentation
2021 | CIDR, Virtual Event
Kumari, Poonam and Brachmann, Michael and Kennedy, Oliver and Feng, Su and Glavic, Boris

| Loki: Streamlining Integration and Enrichment
2020 | HILDA, Portland, OR
William Spoth, Poonam Kumari, Oliver Kennedy and Fatemeh Nargesian

| Make Informed Decisions: Understanding Query Results from Incomplete Databases
2019 | PhD Workshop at VLDB, Los Angeles, CA
Poonam Kumari

| Building a Knowledgebase for Incremental Schema Recovery
2018 | Manuscript
Poonam Kumari, Gourab Mitra and Oliver Kennedy

| The Good and Bad Data
2018 | North East Database Day at MIT, Boston, MA
Poonam Kumari and Oliver Kennedy

| Communicating Data Quality in On Demand Curation
2016 | Proceedings of the 11th VLDB Workshop on Quality in Databases, New Delhi, India
Poonam Kumari, Oliver Kennedy, and Said Achmiz