SMRITI KOTIYAL

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Education

University of Washington | Seattle, USA — **SEP 2024 – SEP 2025**
Masters in Information Management, with Specialization in Data Science

University of Bradford | Bradford, UK — **SEP 2019 - SEP 2020**
Masters in Big Data Science and Technology (Hons) — **86%**

Graphic Era University | Dehradun, India — **JUL 2012 - JUL 2016**
Bachelor of Technology in Computer Science (Hons) — **GPA – 9.0/10**

Technical Skills

Programming and Web skills	: Python, HTML, JavaScript, Python Flask, Web Scraping
Database	: Knowledge Graph (SPARQL – Graph DB), MS SQL/ MySQL
Software/ Services/ ML Tools	: GATE for NLP, Protégé, Jupyter notebook, Google Colab, GPT3 API integration
Cloud	: AWS (EC2), Ansible, GCP (BigQuery)
Business Process Tools and IDE	: GitHub, ServiceNow, Jira, Visual Studio Code,
Operating System	: Mac OS, Windows, Ubuntu

Work Experience

University of Washington | Seattle, USA | *On-Campus*
Student Scribe – UW Disability Resources for Students — **SEPT 2024 – *Present***

- Support students enhancing accessibility and learning through effective notetaking during lectures and exams
- Courses covered: Research Methods, Design Methods

Scholarly Communications and Data Services Specialist – UW Libraries — **OCT 2024 – *Present***

- Support researchers in open access, data management, and curation

University of Bradford | AYJ Solicitors | London, UK Research Assistant
Artificial Intelligence (AI) Engineer – KTP Associate — **APR 2021 – APR 2023**

- Engineered Conversational Agent (CA) for UK immigration law from 0 to 1, leveraging GPT-3 API integration, and fine-tuning
- Crafted a bespoke Knowledge graph (KG) for UK immigration law with 700+ graph nodes and 1000+ clauses from immigration archives
- Built occupational codes' classification tool using Random Forest and Naïve Bayes reducing human efforts by 93%
- Developed Python-based Decision Support System (DSS) for visa application preparation reducing customer cost by 100%
- Showcased paper titled **"Knowledge Graph based Intelligent Conversational Agent for UK Immigration Case Work"** in Greece.

University of Bradford | Bradford, UK
Research Assistant — **JUL 2016 – AUG 2019**

- Developed real-time dashboard to efficiently retrieve and visualize IoT-generated Air Quality data from 20+ city locations
- Constructed Visual Analytics Solution for co-design, using BIHR's Public Health data for 50,000 patients with 100+ unique diseases
- Designed a GCP BigQuery data pipeline to enhance code consistency and link local coding platforms with GitHub for better traceability
- Utilized UpSet, Parallel plot, MetroSet and RadSet visualization techniques to understand cohort intersection with focus on Type 2 diabetes

Infosys Pvt Ltd | Hyderabad, India | Melbourne, Australia
Systems Engineer — **JUL 2016 – AUG 2019**

- Ensured precise data loading to the DSS through streamlined ETL process using Microsoft SSIS, handling 7 data dumps of 12-14 GB daily
- Collaboratively supported and maintained a 14-year-old workforce management production application within a 60+ members team
- Remediated 150+ issues in UNIX and SQL jobs and executed complex deployments for the successful migration of WFM to AWS
- Implemented real-time DSS monitoring using C#, reducing manual effort by 95% with efficient data tracking and failure alarms

Academic Projects

Efficient Visualization and Predictions for Space Weather Applications | MSc Dissertation — **JUN 2020 - SEP 2020**

- Built a Solar flares prediction system with LSTM Recurrent Neural networks, elevating classical prediction systems to an accuracy of ~78%
- Conducted time-series analysis of real-time Solar data of 20 years (1981 to 2002) collected by geostationary satellite and stored by NGDC
- Improved the dataset quality by 30.95% by crafting a novel dataset by rigorously curating multiple Solar spots and flares datasets
- Developed a visual tool for novel, automated and improved solar dataset retrieval using Python Tkinter