SAYANTAN PAL

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Summary

PhD candidate (UB-CSE) building personalized, agentic conversational AI (LLMs + RAG) for accessibility and reliability. Published in COLING/IJCNLP/EMNLP/IUI. Industry experience building LogRAG systems for RCA and QA triage.

Education

The State University of New York at Buffalo   **Aug 2022 – Present**
PhD in Computer Science and Engineering, GPA 3.89/4   *Buffalo, New York, United States*

Heritage Institute of Technology   **July 2018 – July 2022**
B.Tech in Computer Science and Engineering, GPA 9.0/10   *Kolkata, West Bengal, India*

Publications

- **ATLAS: Agentic Template-Centric Log Search for Interactive Root Cause Analysis**
  Sayantan Pal et al.   *Under review*
- **Prompt-Based Continual Learning with Task-Agnostic Inference: A Memory-Efficient Approach**
  Anushka Tiwari, **Sayantan Pal***, Rohini K. Srihari, Kaiyi Ji*   *Under review*
- **SPICA: Scalable and Personalized Conversational Agent Framework for AAC Users**
  Sayantan Pal et al.   *IUI 2026*
- **Harmonious Minds: Benchmarking Intertwined Reasoning of Human Personality and Musical Preference**
  Sayantan Pal, Souvik Das, Rohini K. Srihari   *IJCNLP-AACL 2025*
- **Beyond Discrete Personas: Personality Modeling Through Journal Intensive Conversations**
  Sayantan Pal, Souvik Das, Rohini K. Srihari   *COLING 2025*
- **Empowering AAC Users: A Systematic Integration of Personal Narratives with Conversational AI**
  Sayantan Pal, Souvik Das, Rohini K. Srihari, Jeff Higginbotham, Jenna Bizovi   *CustomNLP4U, EMNLP 2024*
- **Mitigating Clickbait: An Approach to Spoiler Generation Using Multitask Learning**
  Sayantan Pal, Souvik Das, Rohini K. Srihari   *ICON 2023*
- **Summary Generation using NLP Techniques and Cosine Similarity**
  Sayantan Pal, Maiga Chang, Maria Fernandez Iriarte   *ISDA 2021*

Professional Experience

- **Member of Technical Staff Intern, Nutanix** — San Jose, CA   *Jun 2025 – Dec 2025*
  - Developed an **agentic LogRAG** system for QA Eng. teams to triage service failures and perform RCA.
  - Improved system efficiency by ≈**8%** over baselines; reduced manual investigation time from **days to minutes**.
  - Built **benchmarking & evaluation pipeline**; optimized retrieval & orchestration for debugging workflows.
  - **Stack**: Python, PostgreSQL/pgvector, embeddings, RAG, evaluation pipeline.
- **Additional Experience**   *2020 – 2021*
  - **Mitacs Globalink Research Intern (GRI'21), Athabasca University** – Developed a web-based NLP system
    for answering COVID-19 queries, processing **236K+ raw text docs**. Published results in Springer LNNS.
  - **Amazon** (ASI'21) - Built Alexa skills, organized events, & led 300+ Alexa enthusiasts. Featured in video.
  - **Summer Research Intern'20, IIT Kharagpur** (Dr. Pabitra Mitra) - Satellite Land-Cover Segmentation.
  - **Summer Intern'20, Elahe Technologies** (Dr. Prosenjit Gupta) - Retail Review Classification.

Technical Skills

- **Languages**: Python, Java, C, C++, SQL
- **Libraries/Frameworks**: PyTorch, Transformers, Huggingface, LangChain, Numpy, Pandas, Scikit-learn, spaCy
- **Tools/Infra**: Git, Linux, Docker, Slurm, W&B, FAISS, PostgreSQL/pgvector

Achievements

- **2025 Nutanix Intern Hackathon Winner:** Badge.
- **Grand Finalists of TVS CREDIT E.P.I.C SEASON 2:** D2C Competitive Leaders 2021.
- **Among Top 1% In IIO**: Secured International Rank 21 in IIO 2014, Level 2.

Leadership/Extracurricular

- **Reviewer**: ACL 2026, IUI 2026, ISAAC 2026, EMNLP 2025, EMNLP 2023.
- **ACM Student's Chapter HITK:** Chair (2021-22), Webmaster (2019-20).