Preetam Dammu

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EDUCATION

Doctor of Philosophy, Information Science 2022 - Present
University of Washington, Seattle, Washington
- Advisor: Prof. Chirag Shah
- Recipient of the UW Top Scholar Fellowship

Master of Technology, Artificial Intelligence 2019
University of Hyderabad, Hyderabad, India
- Advisor: Prof. Raju S. Bapi
- Recipient of the Department's Gold Medal (1st Rank)

Bachelor of Technology, Computer Science & Engineering 2017
Sreenidhi Institute of Science & Technology, Hyderabad, India
- Graduated with Distinction
- Head of Android Development Club (ADC)

RESEARCH EXPERIENCE

Amazon Science June 2024 – Sep 2024
Applied Scientist II Intern
- Intern in Search Experience Science team.
- Projects focused on Generative Agents.

Amazon Science June 2023 – Sep 2023
Applied Scientist II Intern
- Intern in AlexaShopping / Nile Research team.
- Projects focused on LLMs and Evidence Attribution in NLG.

UW iSchool Sep 2022 - Present
Graduate Research Assistant
- Member of RAISE and InfoSeeking Lab.
- Research focused on Generative AI (Agents, VLMs & LLMs).

TCS Research & Innovation Labs Aug 2019 – Sep 2022
Researcher
- Member of the "Secure and Private AI" research team
- Projects focused on solving security-related technological barriers to AI adoption.

Computational Intelligence Lab, UoH Sep 2017 – Sep 2019
Graduate Student Researcher
- Conducted reasearch in the intersection of Cognitive Neuroscience and ML.
- Employed machine learning techniques to model and detect neurological disorders.

AREAS OF EXPERTISE

- Generative AI: Agents, VLMs & LLMs
- Responsible AI: Explainability, Fairness, Robustness, Security & Privacy
- Information Retrieval
- Natural Language Processing
- Computer Vision

RESEARCH PUBLICATIONS

1) **Dammu**, et al. A Shopping Agent for Addressing Subjective Product *Needs. Proceedings of the 18th ACM International Conference on Web Search and Data Mining* ***(WSDM 2025)***.
2) **Dammu** et al. "They are uncultured": Unveiling Covert Harms and Social Threats in LLM Generated Conversations. *Proceedings of the 2024 Conference on Empirical Methods in Natural Language Processing* ***(EMNLP 2024)***. Paper Link.
3) **Dammu** et al. ClaimVer: Explainable Claim-Level Verification and Evidence Attribution of Text Through Knowledge Graphs. *Findings of the 2024 Conference on Empirical Methods in Natural Language Processing* ***(EMNLP Findings 2024)***. Paper Link.
4) **Dammu** and Alonso. "Near-duplicate Question Detection". *Companion Proceedings of the ACM on Web Conference* ***(WebConf 2024).*** Paper Link.
5) Alonso, **Dammu**, & Yang. An Interpretable Answer Scoring Framework. *The Second Workshop on Generative Information Retrieval* ***(SIGIR Workshop 2024).*** Paper Link.
6) **Dammu** and Shah. "Detecting Spurious Correlations via Robust Visual Concepts in Real and AI-Generated Image Classification". *37th Conference on Neural Information Processing Systems* ***(NeurIPS 2023), XAIA Workshop***. Paper Link.
7) **Dammu**, Feng, and Shah. "Addressing Weak Decision Boundaries in Image Classification by Leveraging Web Search and Generative Models". *Proceedings of the Thirty-Second International Joint Conference on Artificial Intelligence* ***(IJCAI 2023)***. Paper Link.
8) **Dammu** et al. "Explainable and Personalised Privacy Prediction". In *International Conference on Information and Knowledge Management Workshops* ***(CIKM Workshop 2021)***. Paper Link.
9) **Dammu** et al. "Interpretable and Robust Face Verification". In *International Conference on Information and Knowledge Management Workshops* ***(CIKM Workshop 2021)***. Paper Link.
10) **Dammu** & Bapi. "Employing Temporal Properties of Brain Activity for Classifying Autism Using Machine Learning". In *8th International Conference on Pattern Recognition and Machine Intelligence* ***(PReMI 2019)***. Paper Link.
11) **Dammu** & Bapi. "Temporal Dynamics of the Brain Using Variational Bayes Hidden Markov Models: Application in Autism". In *8th International Conference on Pattern Recognition and Machine Intelligence* ***(PReMI 2019)***. Paper Link.

PATENTS AWARDED

1) Method and System for Feature Based Image Retrieval
   Inventors: **Dammu, P. P. S.**, Chalamala. S. R., & Singh, A.K.
   Application Numbers – IP India: 202121021834, US PTO: 17/660,034
2) Systems and Methods for Constructing a Modular Siamese Network for Face Verification
   Inventors: **Dammu, P. P. S.**, Chalamala. S. R., & Singh, A.K.
   Application Numbers – IP India: 202121007953, US PTO: 17/358,496
3) System and Method for Explainable and Personalised Privacy Prediction
   Inventors: **Dammu, P. P. S.**, Chalamala. S. R., & Singh, A.K.
   Application Numbers – IP India: 202121049709, US PTO: TBD

AWARDS AND HONORS

1) Azure Cloud Computing Credits (Co-PI, Amount: $20,000)
2) UW Top Scholar Award (Amount: 1 Quarter Funding & $5,000)
3) Gold Medal – SCIS, University of Hyderabad