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 Sreenidhi Institute of Science & Technology, Hyderabad, India

2017

- · 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. "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.
- 2) 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.
- **3) Dammu**, Alonso & Poblete. A Shopping Agent for Addressing Subjective Product *Needs.* (*Under review*).
- **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 Al-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