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 University of Hyderabad, Hyderabad, India

2019

- 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 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 AI Fairness, Explainability & Robustness.

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

RESEARCH PUBLICATIONS

- 1) Dammu et al. "Fine-grained Evidence Attribution of Text Over Knowledge Graphs". (Under Preparation).
- 2) Dammu et al. "Modeling Cultural Disalignment of Guardrails in Large Language Models". (Under Preparation).
- **3) Dammu** and Alonso. "Identifying Near-duplicate Questions using Zero-shot Learning". (*Under Review*).
- **4) 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.
- **5) 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.
- **6) Dammu**, Chalamala, & Singh. "Explainable and Personalised Privacy Prediction". In *International Conference on Information and Knowledge Management Workshops* (CIKM 2021). Paper Link.
- **7) Dammu**, Chalamala, Singh, & Bayya. "Interpretable and Robust Face Verification". In *International Conference on Information and Knowledge Management Workshops* **(CIKM 2021)** Paper Link.
- 8) Dammu, & Bapi (2019, December). "Employing Temporal Properties of Brain Activity for Classifying Autism Using Machine Learning". In 8th International Conference on Pattern Recognition and Machine Intelligence (PReMI 2019). Springer, Cham. Paper Link.
- 9) Dammu, & Bapi (2019, December). "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). Springer, Cham. Paper Link.

PATENT FILINGS

- 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: \$10,000)
- 2) UW Top Scholar Award (Amount: 1 Quarter Funding & \$5,000)
- 3) Gold Medal SCIS, University of Hyderabad

RELEVANT WORK EXPERIENCE

School of Computer and Information Sciences, UoH

Sep 2018- Sep 2019

Teaching Assistant to Prof. Raju S. Bapi

• Served as TA for two courses: (I) Pattern Recognition and (II) Neural Networks.

Kony, Inc. Mar 2017- Jul 2017

Associate Software Engineer

• Worked in the R&D team of Kony Visualizer, a low-code application development platform.