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 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

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

RESEARCH PUBLICATIONS

1) **Dammu** and Alonso. "Identifying Near-duplicate Questions using Zero-shot Learning". *(Under Review)*
2) **Dammu** and Shah. "Detecting Spurious Correlations via Robust Visual Concepts in Real and AI-Generated Image Classification". *(Under Review).*
3) **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.
4) **Dammu**, Chalamala, & Singh. "Explainable and Personalised Privacy Prediction". In *30th ACM International Conference on Information and Knowledge Management (CIKM2021).* Paper Link.
5) **Dammu**, Chalamala, Singh, & Bayya. "Interpretable and Robust Face Verification". In *30th ACM International Conference on Information and Knowledge Management (CIKM2021)* Paper Link.
6) **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* (pp. 193-200). Springer, Cham. Paper Link.
7) **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* (pp. 121-130). 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.
- Assisted in preparing teaching materials and interactive demo presentations.

Kony, Inc. Mar 2017- Jul 2017

Associate Software Engineer

- Worked in the R&D team of Kony Visualizer, a low-code application development platform.
- Contributed to the development of an automated tool which processes logs and identifies bugs.
- Wrote production-level code in Javascript for a banking application.