## 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**

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

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## **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 Al-Generated Image Classification". *37th Conference on Neural Information Processing Systems (NeurIPS 2023), XAIA Workshop.* Paper Link.
- **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)*. <u>Paper Link</u>.
- **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.