Gregory Plumb

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Education	**Graduate Institution (Ph.D.):** Carnegie Mellon University - Sixth Year **Undergraduate Institution:** University of Wisconsin-Madison **GPA:** 3.95 **Majors:** Computer Science with Honors Mathematics with Honors

Conference and Journal Publications

- Valerie Chen, Nari Johnson, Nicholay Topin, Gregory Plumb, Ameet Talwalkar. *Use-Case-Grounded Simulations for Explanation Evaluation.* NeurIPS 2022. [Link]
- Gregory Plumb, Marco Tulio Ribeiro, Ameet Talwalkar. *Finding and Fixing Spurious Patterns with Explanations.* TMLR 2022. [Link]
- Joon Sik Kim, Gregory Plumb, Ameet Talwalkar. *Sanity Simulations for Saliency Methods.* ICML 2022. [Link]
- Valerie Chen, Jeffrey Li, Joon Sik Kim, Gregory Plumb, Ameet Talwalkar. *Interpretable Machine Learning: Moving from mythos to diagnostics.* ACM Queue 2022. [Link]
- Jeffrey Li, Vaishnavh Nagarajan, Gregory Plumb, Ameet Talwalkar. *A learning Theoretical Perspective on Local Explainability.* ICLR 2021. [Link]
- Gregory Plumb, Maruan Al-Shedivat, Eric Xing, Ameet Talwalkar. *Regularizing Black-box Models for Improved Interpretability.* NeurIPS 2020. [Link]
- Gregory Plumb, Jonathan Terhorst, Sriram Sankararaman, Ameet Talwalkar. *Explaining Groups of Points in Low-Dimensional Representations.* ICML 2020. [Link]
- Gregory Plumb, Denali Molitor, Ameet Talwalkar. *Model Agnostic Supervised Local Explanations.* NeurIPS 2018. [Link]
- Gregory Plumb, Lindsay Clark, Sterling C. Johnson, Vikas Singh. *Modeling Cognitive Trends in Preclinical Alzheimer's Disease (AD) via Distributions over Permutations.* MICCAI 2017. [Link]

Other Publications

- Gregory Plumb*, Nari Johnson*, Alexander Cabrera, Marco Tulio Ribeiro, Ameet Talwalkar. *Evaluating Systemic Error Detection Methods using Synthetic Images.* Workshop on Spurious Correlations, Invariance, and Stability @ ICML 2022. [Link]

Awards

- Winner of the 2015 Dewitt Undergraduate Scholarship from the Department of Computer Sciences, University of Wisconsin-Madison (one award per year, $8000)

Internships

- Microsoft Research: Worked on a novel framework for identifying and correcting spurious correlations in image classifiers. (Summer 2020)
- Amazon: Developed a framework for visualizing and debugging parallel and distributed workflows. (Summer 2016)
- Carnegie Mellon University - Summer Undergraduate Research Experience in Statistics: Worked with fMRI data to identify regions of the brain involved with abstract reasoning. (Summer 2015)
- Clemetric: Developed a Machine Learning framework for determining the quality of streamed ECG data (Summer 2014) and to predict whether or not a patient in a hospital will enter septic shock (Summer 2017).