

avni510.github.io  
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EDUCATION	<div>University of California, San Diego</div> <div>M.S. in Computer Science</div> <div>Thesis: Foundations for Model-Agnostic Recourse Verification</div> <div>Advisors: Berk Ustun &amp; Lily Weng</div> <div>Coursework: Machine Learning; Recommender Systems; Neural Networks &amp; Pattern Recognition; Convex Optimization; Statistical NLP; Probabilistic Reasoning &amp; Learning; Networking Systems</div> <div>2021 – PRESENT</div> <div>GPA: 3.74/4.00</div>
	<div>University of Texas at Austin</div> <div>B.A. in Mathematics &amp; B.A. in Economics</div> <div>Minor in Computer Science</div> <div>Coursework: Databases; Programming Languages; Software Design; Real Analysis; Number Theory; Discrete Mathematics; Differential Equations; Linear Algebra &amp; Matrix Theory; Econometrics</div> <div>2011 – 2016</div> <div>GPA: 3.72/4.00</div>
RESEARCH INTERESTS	Machine Learning, Algorithmic Fairness, Algorithmic Recourse, Privacy, Interpretability, Natural Language Processing, Auditing, Adversarial Robustness, Deep Learning, Uncertainty Quantification
AWARDS	DeepMind Fellow (Article)2021 – 2023 University Honors2011 – 2014
PAPERS	<a href="#">Prediction without Preclusion: Recourse Verification with Reachable Sets</a> Avni Kothari, Bogdan Kulynych, Lily Weng, Berk Ustun In Submission, 2023
WORK EXPERIENCE	<div>Edovo; Chicago, IL</div> <div>Software Engineer</div> <div>JAN. 2020 – MAY 2021</div> <ul style="list-style-type: none"><li>Designed and developed an educational content platform to handle 700K+ requests per day</li><li>Created a pipeline and nightly job to merge 4 billion rows of user event data in PostgreSQL</li><li>Spearheaded team sessions to improve software development practices and adopt new frameworks</li></ul> <div>8th Light; Chicago, IL</div> <div>Lead Software Engineer</div> <div>AUG. 2017 – MAR. 2019</div> <ul style="list-style-type: none"><li>Developed a diabetes management iOS app to connect patients with diabetic nurse specialists</li><li>Enhanced a Java-based continuous deployment pipeline, seamlessly integrating with internal tools</li><li>Mentored peers and residents through pair programming sessions and code reviews</li></ul> <div>Resident Apprentice</div> <div>JAN. 2017 – AUG. 2017</div> <ul style="list-style-type: none"><li>Created games and applications with a focus on Test Driven Development and SOLID Design</li><li>Created an HTTP Server in Java without libraries for app deployment</li><li>Gave company-wide talks on “Hashing Functions” and “Fun with Prime Numbers”</li></ul>
POSTER PRESENTATIONS	ICML Workshop on Data-centric Machine Learning Research; Honolulu, HIJULY 2023 ICML Workshop on Spurious Correlations, Invariance and Stability; Honolulu, HIJULY 2023 ICML Workshop on Artificial Intelligence & Human Computer Interaction; Honolulu, HIJULY 2023
TEACHING EXPERIENCE	<div>Interpretability &amp; Explainability in Machine Learning; UC San Diego</div> <div>SEPT. 2022 – DEC. 2022</div> <div>Course taught by: Berk Ustun</div> <div>Supported instruction for 30+ MS/PhD students in an introductory research course.</div> <div>Differential Calculus Tutor; UT Austin</div> <div>MAY 2011 – AUG. 2013</div> <div>Tutored undergraduates on limits, Riemann sum, continuity, derivatives, and differentiation rules</div>
SKILLS & INTERESTS	<div>Software:</div> <div>Python, Java, Swift, Javascript, AWS, Elasticsearch, Elixir, SQL, Terraform</div> <div>Libraries:</div> <div>Pytorch, CPLEX, Numpy, Pandas, Sklearn, Redux, React</div> <div>Interests:</div> <div>Cycling, Gardening, Knitting, Hiking, Swimming, Fiction</div>