Pasha Khosravi

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Education

University of California, Los Angeles   **Los Angeles, CA**
Computer Science, PhD, Advised by Prof. Guy Van den Broeck   *2018 – 2023*
Focused on Artificial Intelligence and Machine Learning

University of California, Irvine   **Irvine, CA**
Computer Science, BS, GPA: 3.96   *2015 – 2018*
Speciallized in Intelligent Systems; Campuswide Honors Program; ICS Honors

Experience

Meta   **Menlo Park, CA**
Software Engineering Intern, Machine Learning   *Sep 2022 – Dec 2022*
 - Probability Org. R3 Team (Ranking, Relevance, and Recommendations).

LinkedIn   **Sunnyvale, CA**
Applied Research Data Science Intern   *June 2022 – Sep 2022*
 - Worked on modeling of holiday effects for time-series data and improving forecast models around holidays

LinkedIn   **Sunnyvale, CA**
Applied Research Data Science Intern   *June 2021 – Sep 2021*
 - Leveraged historical data to build a simulation to benchmark current approaches vs few Reinforcement
   Learning methods to increase sales revenue.

Snap Inc.   **Santa Monica, CA**
Research Intern, Data Insights and Governance team   *June 2020 – Sep 2020*
 - Modeling of A/B testing data using probabilistic methods such a probabilistic circuits.
 - Goal of estimating things like individual treatment effects (ITE) [PyTorch, BigQuery, GCP]

Facebook   **Menlo Park, CA**
Software Engineering Intern, Ads Delivery Infrastructure team   *June 2018 – Sep 2018*
 - Worked on improvements for infra regression tests of Facebook's ads ecosystem.
 - Project involved multi-threading and distributed systems. [C++, internal tools]

Amazon   **Seattle, WA**
Software Engineering Intern, AWS Lex team   *June 2017 – Sep 2017*
 - AWS Lex develops the tools to make conversational interfaces (chat bots).
 - Project involved adding few features to the APIs, including the steps from design, implementation,
   documentation, and deployment. [Java, internal tools]

Infiniglobe   **Newport Beach, CA**
Sr. Developer, [LAMP Stack, Elasticsearch, WOPI]   *Oct 2017 – June 2018*
 - Design and implementation of backend APIs and infra, with frontend using React.

Kiersted Systems   **Newport Beach, CA**
Technical Consultant, [Java EE, Angular.js, and Bootstrap]   *June 2015 – Sep 2016*
 - Software development for legal technology sector. Full time during two summers, part time during school.

Research & Teaching

UCLA   **Los Angeles, CA**
Graduate Student Researcher, StarAI Lab   *Sep 2018 – Present*
- Focus on probabilistic reasoning, Explainable AI (XAI), and tractable probabilistic models.
- Teaching Assistant: Fundamentals of Artificial Intelligence (CS 161; 2 times), Probabilistic Programming and Relational Learning (CS 267A).
- Mentored undergraduate and master students. Lead to publications or completion of capstone projects

UC Irvine   **Irvine, CA**
Undergraduate research/teaching positions   *2016 – 2018*
- Advised by Prof. Sameer Singh. Black-box explanation approaches for deep reinforcement learning agents.
- Advised by Prof. Wayne Hayes. Design new algorithms for aligning Protein Protein Interaction networks.
- ICPC Coach: Run coding competition practice sessions for ACM @ UCI.

Selected Publications

[1] **Pasha Khosravi**, Antonio Vergari, and Guy Van den Broeck. Why Is This an Outlier? Explaining Outliers by Submodular Optimization of Marginal Distributions. In the 5th Workshop on Tractable Probabilistic Modeling at UAI (TPM 2022).

[2] Eric Wang, **Pasha Khosravi** and Guy Van den Broeck. Probabilistic Sufficient Explanations. IJCAI 2021.

[3] Meihua Dang, **Pasha Khosravi**, Yitao Liang, Antonio Vergari and Guy Van den Broeck. Juice: A Julia Package for Logic and Probabilistic Circuits. AAAI 2021 (demo track).

[4] **Pasha Khosravi**, Antonio Vergari, YooJung Choi, Yitao Liang and Guy Van den Broeck. Handling Missing Data in Decision Trees: A Probabilistic Approach, In The Art of Learning with Missing Values Workshop at ICML (Artemiss), 2020.

[5] **Pasha Khosravi**, YooJung Choi, Yitao Liang, Antonio Vergari and Guy Van den Broeck. On Tractable Computation of Expected Predictions, NeurIPS 2019.

[6] **Pasha Khosravi**, Yitao Liang, YooJung Choi, and Guy Van den Broeck. What to expect of classifiers? Reasoning about logistic regression with missing features. IJCAI 2019.

Honors & Awards & Involvements

Ranked 56th in *ACM ICPC* World Finals, South Dakota, USA	*May 2017*
Ranked 1st (Nov 2016), 3rd (Nov 2017) in *ACM ICPC* Southern California Region	*Multiple*
Ranked 24th in *IEEExtreme 11.0* worldwide, 2nd in US	*Oct 2017*
Regent Scholar, Merit based scholarship at UC Irvine	*2015 – 2018*
ACM @ UCI - President (2017 - 2018), Webmaster (2016-2017). acm-uci.org	*Multiple*

Academic Service

Reviewer or PC: AISTATS 2023, AAAI 2023, UAI 2022, AAAI 2022, AISTATS 2022, IJCAI 2021, UAI 2021, AAAI 2021

Top Reviewer Award: UAI 2021