Nicolas Espinosa Dice

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Education

2023–Present	**Ph.D., Computer Science**, *Cornell University* *Advisor: Wen Sun*
2022	**B.S., Mathematics and Computer Science**, *Harvey Mudd College* Graduated with High Distinction and Departmental Honors in Mathematics and Computer Science.

Research Experience

2023–Present	**Department of Computer Science**, *Cornell University* *Advisor: Wen Sun* Currently researching imitation learning and reinforcement learning with generative models.
2020–2022	**AMISTAD Lab**, *Harvey Mudd College* *Advisor: George D. Montanez* Developed a probabilistic model of abductive reasoning, and derived generalization error bounds of learning algorithms in an algorithmic search framework.

Industry Experience

2022–2023	**Research Scientist**, *Dasion* *Advisor: Weiqing Gu* Developed an audio-based model capable of detecting Autism Spectrum Disorder in children, contributing to a successful NSF SBIR Phase I Project Pitch, and co-authored successful NSF SBIR Phase II Proposal.
2021–2022	**Project Lead**, *Clinic Program*, Harvey Mudd College Project lead of undergraduate team working with Rockerbox that built an anomaly detection model on time-series marketing data.
Summer 2021	**Software Engineer Intern**, *Etsy* Developed a transformer-based deep learning model with DistilBERT architecture using Tensorflow to classify safe search queries.
Summer 2019	**Software Engineer Intern**, *Viasat* Built a heads-up display on a Microsoft HoloLens, integrated with data from Link 16 radio network. Presented by Viasat at AUSA 2019.

Publications

Nicolas Espinosa Dice, Megan Kaye, Hana Ahmed, and George Montañez. A probabilistic theory of abductive reasoning. In *Proceedings of the 13th International Conference on Agents and Artificial Intelligence*, volume 2, 2021.

Ramya Ramalingam, **Nicolas Espinosa Dice**, Megan L Kaye, and George D Montañez. Bounding generalization error through bias and capacity. In *2022 International Joint Conference on Neural Networks (IJCNN)*, pages 1–8. IEEE, 2022.

Nicolas Espinosa Dice, Sanjiban Choudhury, Wen Sun, and Gokul Swamy. Efficient imitation under misspecification. *Preprint*, 2024.

Nicolas Espinosa Dice, Gokul Swamy, Sanjiban Choudhury, and Wen Sun. Efficient inverse reinforcement learning without compounding errors. In *First Reinforcement Learning Safety Workshop*, 2024.

Teaching and Outreach

2024   **Teaching Assistant**, *Foundations of Reinforcement Learning*, Cornell University

2024   **ASCEND Mentor**, *Department of Computer Science*, Cornell University

2024   **Graduate Student Mentor**, *Department of Computer Science*, Cornell University

2018–2022   **Chair**, *Honor Board*, Harvey Mudd College

2018–2022   **Public Outreach Director**, *Society of Professional Latinx in STEM*, Harvey Mudd College

2021   **Grader and Tutor**, *Artificial Intelligence*, Harvey Mudd College

Fellowships and Awards

2023   **Hopper-Dean and Bowers Fellowship**, *Cornell University*

2023   **Dean's Scholar**, *Cornell University*

2022   **Departmental Honors in Computer Science**, *Harvey Mudd College*

2022   **Departmental Honors in Mathematics**, *Harvey Mudd College*

2022   **Don Chamberlain Computer Science Research Award**, *Harvey Mudd College*
Second student at Harvey Mudd to win both Chamberlain Research and Clinic Program Individual Awards

2022   **Clinic Program Individual Award**, *Harvey Mudd College*

2018   **Harvey S. Mudd Merit Award**, *Harvey Mudd College*