**Contact Information**
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# BHASKAR MISHRA

**Online Profiles**
Github: mbhaskar1
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## EDUCATION

**University of Florida** **Class of 2023**
Gainesville, Florida

- Candidate for **B.S. in Computer Science**, **B.S in Mathematics**, and **Minor in Philosophy**, GPA: 4.00
- Relevant Coursework: Machine Learning, Mathematics for Intelligent Systems, Deep Learning for Computer Graphics, Elements of Topology, Advanced Calculus 1 & 2, Abstract Algebra, Philosophy of Artificial Intelligence
- Accepted member of the University Research Scholars Program and the UF Honors Program

## RELEVANT EXPERIENCE

**Undergraduate Researcher at Brown University** **2021 – Present**

Conducting research under the guidance of Dr. Cyrus Cousins and Dr. Amy Greenwald from Brown University. Applying statistical convergence theorems to data-based structures in Algorithmic Game Theory in order to create novel guarantees on the accuracy and usefulness of properties derived from games estimated from data.

**Deep Learning for Computer Graphics Class Final Project** (Python) **2020**

Implemented a simplified version of the approach used in the paper "Learning to Simulate Dynamic Environments with GameGAN" for the game of Pong. Used a generative adversarial network based architecture in order to train a model to simulate Pong gameplay, taking screen images and keyboard actions as input, and outputting the following frame in the game.

**EAAI 2021 Gin Rummy Undergraduate Research Challenge** (C++, Java, Python) **2019 – 2020**

Utilized Deep Neural Networks in combination with heuristic strategies based on expert strategies and hyperparameters optimized through grid search and random search in order to create a high-performance Gin Rummy agent. Paper was accepted and has been presented at the EAAI 2021 conference.

**Educational Personal Blog – mbhaskar1.github.io** **2019 – Present**

Written several educational blog posts explaining complex concepts from topics such as Mathematics, Machine Learning, Algorithmic Game Theory, and Statistical Learning Theory.

**West Broward Programming Club – Founder and President** **2017 – 2019**

Taught students algorithmic thinking and the intuition for a variety of data structures, and competed in several online competitive programming competitions.

## TECHNICAL SKILLS

**Deep Learning**: Certified in Convolutional Neural Networks, Sequence Models, and 3 other topics through Coursera's Deep Learning specialization

**Game Theory:** Experienced in theoretical foundations of Algorithmic Game Theory and with algorithms like Monte Carlo Tree Search and variants of Counterfactual Regret Minimization (CFR, CFR+, DeepStack, etc.)

**Programming**: Experienced in Python (PyTorch, Tensorflow, Keras), C++, C#, Java (DeepLearning4J), and JavaScript

## HONORS / AWARDS

**Robert Long Mathematics Essay Competition – First Place Winner** **2020**

**AIME (American Invitational Mathematics Examination) Qualifier** **2019**

**Florida Mu Alpha Theta State Competitions – Several Top 10 Placements** **2017 – 2019**