

## Arvind Ramaswami

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HackerRank: [https://www.hackerrank.com/arvind\\_r](https://www.hackerrank.com/arvind_r)

Website: <https://arvindr9.github.io/>

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### Education

*Georgia Tech* (Fall 2017 – present): Undergraduate Computer Science major. Threads: Intelligence and Theory

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### Skills

**Machine Learning technologies:** Tensorflow, Keras, Azure ML Studio

**Programming languages:** Java, Python, C++, Javascript

**Web technologies:** HTML5, CSS3, JS, Node, Express, React

**Courses taken:** Machine Learning (Coursera), Deep Learning Specialization (Coursera)

**Fall 2017:** OOP, Foundations of Mathematical Proofs, Applied Combinatorics

**Spring 2018:** Data Struct and Alg, Data Input and Manip, Algorithms Honors, Combinatorial Analysis

**Fall 2018:** Intro to AI, Machine Learning, Computer Organiz and Program, Objects & Design

**Competitive Programming:** Involves solving complex algorithmic problems. Member of the GT Programming Team. Participated in the 2017 ACM ICPC Southeast Regional. Qualified for the 2018 ITA Tech Challenge Finals. Currently training under the supervision of Mostafa Saad (2011 ICPC World Finalist)

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### Experience

#### Workshops Coordinator – Big-O Theory Club

Aug 2018 – Present

Running sessions that involve complex problems from mathematics and theoretical computer science. Also gave various talks on areas like Computer Vision and Tensorflow.

#### Machine Learning Researcher – Interactive Optimization and Learning (IOL) Lab

Jan 2018 – Present

Working on adversarial learning under the advisement of Professor Sebastian Pokutta. Focusing on showing that random forests are vulnerable to adversarial examples and training random forests to be more robust to adversarial examples. Currently writing a paper for the AISTATS 2019 Conference.

#### Microsoft Student Partner (MSP) – Microsoft

Sept 2017 – Present

Teaching technical topics such as Microsoft cloud technologies and Machine Learning through workshops at Georgia Tech.

#### Project Lead – Data Science at GT

Oct 2017 – Dec 2017

Lead a team in the Kaggle project *WDSM - KKBox Churn Prediction Challenge* to forecast whether users of a music streaming service will stop their subscription. <https://github.com/arvindr9/kkbox-churn-prediction>

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### Projects

#### Catan AI

Sept 2018 - Present

Using a Monte Carlo tree search algorithm with heuristics to find the optimal Catan-playing AI. This project is being done a part of the Georgia Tech Agency (AI Club).

#### Home Depot Deep Learning Challenge

Nov 2017

Created a ConvNet using Tensorflow overnight to classify images of shopping products.

<https://github.com/arvindr9/Home-Depot-Challenge>

#### WeLocate

October 2017

Built a website that allows users to choose a location on a map to find where to open their business based on a dataset of existing buildings from Yelp's API and results from Amazon's AWS Machine Learning. Used Node.js for the backend and for calling the Python scripts to obtain and train the datasets. Received awards for the Most Disruptive Hack and the Best Financial Hack. <https://devpost.com/software/welocate-7mjhra>

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### Other Skills/Interests

**Mathematics:** Represented Georgia ARML in 2015 and 2017. Experienced in combinatorics and number theory. Developed problem solving skills from math contests. Took the Putnam Exam in December 2017.

**Violin:** Member of the Atlanta Symphony Youth Orchestra (Fall 2016- Spring 17), Georgia All-State Orchestra (2015, 16, 17), Georgia Tech Symphony Orchestra (Fall 2017 - Present). Currently learning conducting under Dr. Chaowen Ting.

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