## **Arvind Ramaswami**

## **Summary**

I am looking for a summer internship in data science or software engineering. Currently, I am a rising sophomore at Georgia Tech, interested in machine learning and algorithms.

Education

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

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 Al, Machine Learning, Computer Organiz and Program

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

Experience

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. <a href="https://github.com/arvindr9/kkbox-churn-prediction">https://github.com/arvindr9/kkbox-churn-prediction</a>

Web Developer — GT Bits of Good

Sept 2017 - Dec 2017

Used Wordpress to redesign the website for the nonprofit World Water Relief. Additionally worked on mini-projects using MERN Stack Web Development (MongoDB, Express, React, Node).

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Projects

Visual Question Answering (VQA) Mobile App

Jan 2018 - Present

Currently using Tensorflow to allow a program to process a question about an image and return an answer. The mobile app is Kotlin-powered. This project is done with a team in GT Agency (the 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. <a href="https://devpost.com/software/welocate-7mjhra">https://devpost.com/software/welocate-7mjhra</a>

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)

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