

# Royce Arockiasamy

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## EDUCATION

### Georgia Institute of Technology

Atlanta, GA

Junior, BS in Computer Science, Minor in Mathematics, GPA: 4.0/4.0

May 2021 – May 2025 (Expected)

### South Forsyth High School

Cumming, GA

Class Rank: 1 of 597, Varsity Tennis, VEX Robotics Worlds Qualifier, Musician, National Beta Scholarship Recipient, Co-Captain of Science Olympiad, Governors Honors Program Finalist, Published Scientific Researcher, Presented at SCUDEM EXPO Conference, First Place at Technology Student Association (TSA) National Conference, USACO Platinum

## EXPERIENCE

### Data Scientist

May 2023 - Present

RightData

Atlanta, GA

- Optimized search engine for global search using AI langchain-based vector embedding search functionality with Neo4j.
- Helped develop SaaS Control Plane platform using React, Nile, and Pulumi (spinning instances in AWS, Azure, and GCP).
- Developed novel algorithm for Emory Healthcare client using Amazon Textract that extracts data from any page matching a geometric template, regardless of page orientation, resolution, or scanned position.
- Developed lineage for data products across source and targets for data governance using pipelines.

### Mobile Application Developer

Summer 2022

International Child Art Foundation

Washington, D.C.

- Collaboration with UX and management teams to design and develop a mobile application to save event dates and information for the World's Children Festival.

### DevOps & SWE Intern

Summer 2021

Meals by Grace

Atlanta, GA

- Used AWS to develop an Inventory Management system.
- Built a working Transactions system that allows staff to add/edit/delete items, containers, and storage locations.
- Developed a forecasting tool using charts & graphs to graphically represent inventory data.

## PROJECTS

### Schematic Optimization of PCB | C++, Boost, MATLAB

- Novel Applied Combinatorics project optimizing the schematic intersections on a PCB (Printed Circuit Board)
- Used C++ to develop and code planar embedding and possibility exclusion algorithms to produce optimized PCB models

### PushUpCounter | Python, Tensorflow, Machine Learning, Artificial Intelligence, JavaScript

- Software program that counts push-ups using AI and works on any device
- Project placed first at the Technology Student Association State Leadership Conference

### ReSearch | Chrome Extension, Machine Learning, Artificial Intelligence, TensorFlow, HTML/CSS/JavaScript

- Coded custom QNA Machine Learning model to answer questions with over 96% accuracy
- Developed chrome extension that allows users to receive answers to the questions they ask based on the content of a page

### Beta Club Website | Node.JS, Cloud APIs, HTML/CSS/JavaScript, GitHub APIs, SEO Management

- Serving over 500+ members
- Frontend website showcasing the club, volunteering opportunities, etc with compatibility on all devices
- Backend using a database to log attendance and track hour submissions with an admin portal to approve/reject statuses

### MIT Battlecode | Java, Mathematical modeling, Artificial Intelligence, GameDev Algorithms

- Coded autonomous virtual robots in Java using AI, pathfinding, distributed algorithms, and communications

### Reserve My Court (Open-Source) | PHP Web Server, HTML/CSS/JavaScript, UI/UX, React

- Coded a dynamic website for users to reserve Tennis courts with a calendar layout
- Compatible on both mobile and laptop devices and runs on a PHP Web Server DBMS

## CERTIFICATIONS

TestOut PC Pro Certification | Hardware, Software, Security, and Troubleshooting

Issued 2022

Programming in HTML5 with JavaScript and CSS3 | Frontend and Backend Web Development

Issued 2019

## SKILLS

**Languages:** English, Spanish, Tamil, Hindi

**Technical Languages:** Java, Python, C/C++, SQL, HTML/CSS/JS, Kotlin, PHP, Bash, C#, Swift, Go, TypeScript, MATLAB

**Technologies:** React, Angular, TensorFlow, Node.js, Docker, SSH, Express, Flask, .NET, Flutter, Bootstrap, Material UI

**Tools:** Git, AWS, Google Cloud, Azure, Firebase, Neo4j, Android Studio, Visual Studio, IntelliJ IDEA, PyCharm, Pulumi