

# RITVIK IYER

github.com/ritviyer | riyer73@gatech.edu | (404) 518-8608 | linkedin.com/in/ritvik-iyer

## EDUCATION

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### Georgia Institute of Technology – Atlanta, GA

Aug 2021 - Present

- Master of Science, Computer Science
- *Relevant Coursework:* Advanced Operating Systems, Grad Algorithms, Machine Learning, Big Data Systems

### Vellore Institute of Technology – Vellore, India

Jul 2013 – May 2017

- Bachelor of Technology, Computer Science and Engineering, **CGPA: 8.9**
- *Relevant Coursework:* Algorithm Design & Analysis, Data Structures, Software Development, Database Systems

## WORK EXPERIENCE

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### Cisco Systems – Pune, India

#### Network Consulting Engineer

Jul 2017 – Apr 2020

- Led projects on design, implementation and migration of modern Software Defined DC and Enterprise networks
- Collaborated in developing an automated assessment software for interviews which was adopted by the DC team
- Recognized as an Early in Career Leader and awarded a Certificate of Excellence owing to automation initiatives
- Organized and served as a co-trainer for a five day internal ACI Advanced Bootcamp

#### Network Consulting Engineer Intern

Jan 2017 - Jun 2017

- Devised a Port Mapping Automation Python script for network migrations which reduced time required by 70%
- Presented the Port Mapping Automation idea at Migration Innovation Day along with two teammates
- Developed Python scripts for automating manual device configuration, verification and debugging

### Hewlett-Packard – Mumbai, India

#### Summer Intern

Jun 2015

- Trained with Database administration team and assisted in building and managing database system at client site
- *Technologies:* SQL, PL/SQL, Relational Database Management system, Procedural Language

## PROJECTS

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### Federated Learning for Next Word Prediction

Sep 2021 – Present

- Build an overlay peer to peer network to train across multiple decentralized edge devices without sharing data
- Enable these devices to collaboratively learn a shared next word prediction model built using RNN or LSTM

### Distributed Service Implementation using gRPC

Oct 2021 – Present

- Built a pseudo-store to establish asynchronous gRPC communication between clients and vendors using C++
- Enabled handling of multiple concurrent requests between clients and servers by implementing a thread pool

### Fantasy Premier League (FPL) Prediction

Jul 2020 – Jun 2021

- Built an application using machine learning algorithms such as Linear Regression, XGBoost and Random Forest to predict the FPL performance of players and then used Linear Programming to find an optimal team
- Competed in FPL season 2020-21 using the model and ranked in the top 2%

### Android Game Development

May 2020 – Jun 2021

- Designed multiple android games using C#, Unity 3D and Object-oriented concepts
- Published three applications on Google Play Store – ([Magnetude](#), [Spot Kick](#), [Something Today](#))

### Application Centric Infrastructure Diagnostic Tool

Mar 2019 – Apr 2020

- Built a tool using Python to query ACI's Management Information Tree using APIs and find any anomaly in its configuration, debug and mitigate faults, assist in migrations and upgrades, and perform sanity checks
- Created an internally hosted web portal for users which helps save 3-5 hours on pre-migration and upgrade tasks

### IoT Based Home Automation System with Pattern Recognition

Jan 2017 – May 2017

- Developed a Home Automation System using Arduino with integration of ESP8266 wi-fi module for remote accessibility and control along with basic pattern analysis based on if-else logic for automatic control of appliances
- Published paper in "International Journal of Recent Technology and Engineering" ([Link](#))

## TECHNICAL SKILLS

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**Proficient:** CCNP, Networking technologies, Python, C++, C#, C, Unity 3D, Machine Learning, pandas

**Intermediate:** HTML, CSS, PHP, SQL, MATLAB, Git, Arduino, JavaScript, NumPy, Scikit-learn, TensorFlow, libvirt