

# Shreyes Bala Athreya Balakrishnan

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## Profile:

- Graduated with Bachelors of Engineering (Computer Science) from Sathyabama University, Chennai, India in 2016.
- Pursuing Master of science in Cloud Computing (Development) in National College of Ireland (September 2018 – August 2019).
- Runner up in Citi Upstart 2019 – Proposed and helped develop a cost effective solution to detect Diabetic Retinopathy (early blindness in diabetic patients) using AI and ML.
- Currently conducting research in Fog computing platform.
- Strong hands-on knowledge in Ruby on Rails, SaaS development, Linux (Debian, Ubuntu, Kali) and Big data environment.
- Junior Manager with 1.7 years of experience in sales, production, and finance.
- Seeking graduate/intern roles in the field of Cloud computing and SaaS development.

## Education:

**August 2018 – August 2019**

**National College of Ireland, Dublin | ncirl.ie**

### **M.Sc. (Cloud Computing) - Development**

**Modules:** Cloud Architecture, Cloud Security, Utility Computing, Cloud Application Development, Business Strategies for Cloud Computing, Cloud Application Services, Programming for Data Analytics, Research in Computing.

### **Projects:**

**Citi's Upstarter:** Developed the idea of a cheaper solution to detecting Diabetic Retinopathy in patients in rural areas where an ophthalmologists and high quality eye hospitals are not available. The solution involves having a smartphone and a Fundus camera. The fundus camera is able to scan the patient's eye and capture a picture of the retina. Using a smartphone paired with the camera, we used Machine learning and Artificial Intelligence to compare the patient's retina with a normal retina. Using this comparison we can detect diabetic retinopathy and the stage of severity. By representing NCI at Citi's upstarter, our prototype model was chosen as the runner-up.

**SaaS Application Development:** A SaaS-based food recommendation application that analyses user data and produces a customized meal plan based on user information and requirement using Ruby on Rails. Built custom gems and pushed to rubygems.org. Penetration testing and security scans with a minimum of three scanners were done to find vulnerabilities and were fixed. After sufficient tests, weak spots were fixed was pushed to production, hosted and maintained in Heroku.

**AWS Cloud Adoption Framework:** A research project on Indian Oil to understand the changes in a company while moving from on-premise datacentre to public cloud. An Action plan was built to integrate business model of the organisation from on-premise model to cloud while considering the six perspectives of AWS CAF.

**Data Analytics:** Crime analysis in Chicago from 2001 till present. I have used RStudio and Python to clean data and sample dataset to a smaller size to work on commodity hardware. Then used Hadoop environment tools such as Pig, Hive, Spark, and Sqoop to perform individual MapReduce queries on the cleaned datasets. Additionally, to gain full customizability, using python, raw MapReduce queries were built to run on a Hadoop environment, which was lightweight and faster compared to pig, hive tasks. The results of the queries were exported as a .csv file and used Tableau to visualize data to understand the processed data and formulated crime patterns.

**Cloud Application Services:** A SaaS application developed to consume a minimum of three API's and a server-side API was created for 3rd party users to utilize The application was built using .net and hosted on Azure during production. The application retrieves address information of users with the help of API's, and a web server was provisioned on Azure.

**Business Strategies on Cloud:** An innovative business idea was proposed in the field of RetailTech by utilizing augmented reality, and Machine Learning algorithms. A concept business model to enhance retail capabilities using smart glass and a mobile app. A detailed landing page was constructed to illustrate the business idea for customers in the retail industry. The project begins by researching the main pain points in Retail and formulate solutions for

customers to address the burning problem. The unique value proposition, benefits, features, and price plan for customers and was developed and expressed.

**August 2012 – August 2016**

**Sathyabama University, Chennai, India |**  
sathyabama.ac.in

### **B.E (Computer Science)**

**Modules:** Object Oriented Programming, Cloud Computing, Java development, Data structures, Software engineering, Operating systems, web technology.

**Senior year project:** Dynamic Resource management in cloud based video services under Heterogeneous Environment. The objective is to allocate resources for video services on user request from multiple regions to distributed data centres and dynamically compute the near and optimal virtual machine.

**Technology Used:** Java, MySQL.

## **Career History:**

September 2016 – June 2018

**Mehra Forms Computer System Ltd,**  
Chennai  
(Major Client: BSNL, Asianet  
Satellite, Hitachi Payment Services)

### **Junior Manager- Marketing, Sales, Accounts and Finance**

- Responsible for maintaining and setting up work in Rotatek printing machine for large scale jobs.
- Handled projects for educational universities, mainly involving security printing such as Degree certificates with more than 13 security features, exam question papers, and answer sheets.
- Worked in quality assurance to ensure high priority university orders.
- Led a team to operate examination OMR sheet's manufacturing, supply, and grading.
- Organised monthly status reviews with client for changes in requirements.

## **Technical Skills:**

- |                                   |   |
|-----------------------------------|---|
| • <b>Programming languages</b>    | Ruby on Rails, Python, HTML, Basic Java |
| • <b>Programming tools</b>        | Eclipse, PyCharm, RubyMine, MySQL       |
| • <b>OS</b>                       | Linux, MacOS, Windows                   |
| • <b>Virtual tools</b>            | VMware and Oracle VirtualBox            |
| • <b>Microsoft Office Package</b> | Word, Excel, PowerPoint                 |
| • <b>Adobe Packages</b>           | Photoshop, Illustrator                  |

## **Languages:**

- English (Fluent written & oral), Tamil (Native)

## **Interests and Achievements:**

- Founding member of the welfare trust "Sushanthi Seva" with friends in Chennai, India that focuses on providing basic needs for people in nursing homes and offers educational services in orphanages.
- Active Blood Donor and social worker.
- Dog lover and a dog parent, have won several dog shows in India.
- Graphic Head during the undergraduate symposium "Techno Summit" the year 2014, 2015.
- Lead a team to organize workshops and symposium during the undergraduate year 2016.

## **Visa**

- Stamp 2 visa: Eligible to work 20 hours a week during term time, 40 hours a week during holidays and under the third level graduate scheme eligible to work without restriction from September 2019-September 2021.

**REFEREES AVAILABLE UPON REQUEST**