

Orsu Akhil

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Hyderabad,Telangana(IN)

EDUCATION

Graduation, B.Tech in CSE	IIT Bombay	7.19/10	2019
Intermediate Education(+2)	Narayana Sri Chaitanya Junior College	978/1000	2015
Matriculation Education	Sri Chaitanya Techno School	9.7/10	2013

CREDENTIALS

- Secured **All India Rank 117** in **JEE Advanced** out of 150,000 candidates (2015)
- Secured **Rank 9** in **AP EAMCET** out of 400,000 candidates (2015)
- Secured **All India Rank 483** in **JEE Main (B.Tech)** out of 1.3 million candidates (2015)
- Secured **Rank 61** in **TS EAMCET** out of 150,000 candidates (2015)
- Secured **All India Rank 261** in **JEE Main (B.Arch)** out of 500,000 candidates (2015)

TECHNICAL SKILLS

Programming	C++, Python, Java (Spring Boot framework), Bash
Cloud Service	GCP, MS Azure
CI-CD Tools	Azure DevOps, Docker, Kubernetes(AKS,GKE, Openshift), Istio
WebDevelopment	Django, JavaScript, Angular

WORK EXPERIENCE

Schlumberger India

Cloud Software Engineer

Pune,India

July'19-Sept'21

Cloud Native Application Development in MS Azure

Sept'20-Sept'21

- Developed RESTful micro services based on **Java Spring boot** framework and deployed using **Flux Gitops** based on **Docker,AKS (Azure Kubernetes Service)**, Istio.
- Worked in setting up and maintenance of **CI-CD** automated pipelines in AzureDevOps, service specific configurations and incorporating various security analysis.
- Involved in managing these micro-services focused on **monitoring, high-availability, auto-scaling**.

Cloud Application Development in Google Cloud

Sept'19-June'20

- Development of features and workflow optimizations of legacy micro services based on **Google Datastore, AppEngine, Storage, Dataflow** Cloud resources.
- Built multi-maven based micro service application having business and cloud provider specific application logic as separate projects. Contributed GCP version of this application to **open source Open SubSurface Data Universe(OSDU)** community.
- Developed an utility library to enable these micro services emit log messages with custom labels in **Google Stackdriver** Logging that help in creating SLI/SLO Definitions and Monitoring.

OLYMPIADS AND SCHOLARSHIPS

- Secured **All India Rank 51** in **KVPY**,Kishore Vaigyanik Protsahak Yojana Exam and awarded Fellowship for students interested in research by the Department of Science and Technology, Government of India (2014)
- Selected for the Indian National Mathematics Olympiad (**INMO**) as one amongst the top 35 of my state who cleared Regional Mathematics Olympiad (**RMO**) (2013)

- Secured **All India Level Rank 1** in **SIMO**, South Indian Mathematics Olympiad (2012)
- Secured **All India Level Rank 11** in **SICHO**, South Indian Chemistry Olympiad (2012)
- Recipient of National Talent Search Examination (**NTSE**) Scholarship by The National Council of Educational Research and Training (**NCERT**), Government of India (2011)

ACADEMIC PROJECTS

Reinforcement Learning in 2048 game

(Autumn '19)

Guide: Prof. Shivram Kalyankrishnan (Course Project)

IIT Bombay

- Created and trained a Deep Neural Network based **Reinforcement Learning(RL)** agent that could play the 2048 board game and evaluated its performance based on parameters.
- Neural Network used for Q-Learning algorithm to compute and update Q-values is based on **Tensorflow** and implemented in Python using **Keras** library and **Py-matplotlib** for visualization.
- The game environment is encoded as **Markov Decision Process(MDP)** states and agent plays using ϵ **greedy** exploration and DQN Q-Table for the state-action values trained from samples using **experience replay buffer**.

Pointer Language Compiler

(Spring' 18)

Guide: Prof. Uday Khedkar (Course Project)

IIT Bombay

- Created a compiler based on python using **lex,yacc** libraries for a c++ like pointer language to output **Mips** assembly language code.
- Designed parser that extracts lexical tokens, create **Abstract Syntax trees(AST)**, uses **Control Flow Graphs(CFG)** and **Symbol tables** in determining program flow and scope of variables.
- Handled parsing logic for function calls and function parameters type checks, loops, pointer indirection levels, checks for variable operator expressions using **CFGs and Symbol tables**.

For'dis Forum

(Autumn '17)

Guide: Prof. Sudarshan (Course Project)

IIT Bombay

- Developed a Web Application that serves as discussion forum wherein Students and Instructors can share their insights on topics and questions forum.
- Application based on **Django Python framework**, **PostgreSQL** database and uses **HTML, CSS, JavaScript** for the frontend User Interface.
- Implemented various features like topic labels, pin important forums by Instructor and Student, create polls, view and upvote counts for posts, anonymous posts in the application.
- Designed and created the relational database schemas and Django server user interface to support all these features.

KEY GRAD COURSES UNDERTAKEN

Data Structures and Algorithms, Operating Systems, Machine Learning, Automata Theory, Artificial Intelligence, Automatic Speech Recognition, Advanced Tools from Modern Cryptography

EXTRACURRICULARS

- Secured 2nd place in AI Hackathon among 25 teams at Schlumberger PuTC. Built DC **Generative adversarial network(GAN)** model that generates images involving city entities (Oct 2020)
- Completed a year long course under the **NSO**, IIT Bombay in Volley Ball and stood 1st in Institute Freshie Volley Tournament (2015-16)
- Participated in Cycling events like Cyclothon conducted by Adventure Club, IIT Bombay comprising of 60 km cycle ride Ride and actively engages in cycling trips (2017)