Priya **Arora**

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Work Experience

Oracle
Seattle, USA

Data Scientist - [**Python, Grafana, InfluxDB, MySQL, Pytest, Docker, CI/CD pipeline (build service), YAML**]
May 2022 - Present

- Leading automation forecasting for network capacity planning group Modules include:
  - I/O Handling
  - Data drifting
  - Modeling - Bayesian, Arima
  - Automatic report generation on breach days
  - Multi-processing/Optimization/Parallelization
  - Third party library integration - Kats (ongoing)
  - Backtesting - ongoing
- Mentored a newly onboarded Data-scientist in the group
- Generated actionable reports on network bandwidth data using Arima, and Bayesian models

Oracle Cloud
Seattle, WA, USA

Software Development Engineer 2 - [**Typescript, BitBucket, Oracle Cloud, Docker, grafana, JIRA, Confluence (wiki like documentation)**]
Oct 2019 - May 2022

- Optimized build time of Oracle cloud front-end platform (loom) by 50% using different front end technologies like webpack, lerna etc
- To cross-check compatibilty of upgraded node environment with different cloud services codebase (repository), migrated loom team sample-plugin to node 10. It laid a foundation for all the cloud services to understand the impact their services with newest front end technologies.
- For console (shell) telemetry service codebase (the service which renders metrics on the grafana dashboard), improved code-coverage from 20% to 85% by implementing a robust test-suite
- Implemented canary test-suite for console telemetry service, and deployed it on eight different realms - OC1-OC8
- Lately, have started contributing to their front-end libraries (Oracle user interface – react, and savant monorepo)
- Established a proof of concept for blind-folded hiring process during Oracle annual Hackathon competition in 2020.
- Developed a POC of a machine-learning model for intrusion detection in cloud systems with 85% efficacy
- On called for few weeks to understand customer issues, debugging and analyzing the system through logs/metrics, fixing those bugs.

Airproducts Chemicals
Pennsylvania

Graduate intern - [**Python, Tensorflow, Keras, AWS, Git, data-pipeline**]
May 2018 - Aug 2018

- Single handedly designed and executed an acoustic image data pipeline using Convolutional Neural Network with 89% performance accuracy
- Trained LeNet architecture with Google audio set dataset
- Integrated anomaly-detection/deviation-detection component within the data-pipeline which improved performance by 6%

Cisco Systems
Bangalore, India

Software Engineer 2 - [**Python, analytics, Git**]
Aug 2014 - Aug 2016

- Reduced manual efforts to validate management features protocol testing by contributing in their automation infrastructure through Python scripts
- Set up a server with all the application layer protocols like TACACS, Radius etc

University of Nottingham
Nottingham, England

Research intern - [**Meteor framework, Javascript, MongoDB, Git, Python, sklearn**]
Jan 2014 - June 2014

- Developed an incident reporting system for Nottingham Health Services - user id psxpa3”
- Developed a machine learning algorithm (KNN model) on the data collected through hospital survey

Education

Texas A&M University
College Station

M.S. in Computer Science and Engineering - [**Research, data-structures & algorithms, Python, Keras, C++**]
Aug 2016 - Aug 2019

- Researched on text-summarization for scientific papers
- Executed Interspeech 2018 cry vocalization competition track
- Explored theoretical aspect of multi-waymergesort and convex optimization
- Researched on mathematical aspect of toll pricing with a constant error for Traffic-flow using convex optimization

International Institute of Information Technology
Bangalore, India

M.Tech. in Computer Science and Engineering - [**Python, Sklearn, Hadoop, Javascript, research, MySQL, bash scripting, XML, JSON, MySQL, Linux**]
Aug 2012 - July 2014

- Developed a machine learning model of Music Classification using Million Song Dataset, and achieved accuracy of 85%
- Implementation of a generic library for genetic algorithms using Hadoop [Map-Reduce programming paradigm]
- Implemented a Virtual Filesystem - a replica of Linux file system [C]

Guru Jambheshwar University of Science and Technology *Haryana, India*

B.Tech. in Information Technology *Aug 2007 - May 2011*

- A proof of concept of library management systemm [C]

Projects

Substance use disorder detection - [**Python, Sklearn, Google Colab, Decision-tree**]

- Goal:- How to prevent/reduce opioid abuse in healthcare domain?
- To detect opiod substance Use Disorder among patients
- Devised a machoine learning model using Decision tree with 89% accuracy as a part of Anthem AI Annual hackathon 2021

Anomaly detection in audio classification - [**Python, Tensorflow, Keras, AWS, Git, data-pipeline, CNN, LeNet architecture**]

- Goal:- Devised a machine learning model to find out non-working machine in chemical industry
- Single handedly designed and executed an acoustic image data pipeline using Convolutional Neural Network with 89% performance accuracy
- Trained LeNet architecture with Google audio set dataset
- Integrated anomaly detection component within the data-pipeline which improved performance by 6%

Privacy preserving emotion detection through speech signal preserving user's identity - [**Python, Opensmile, Keras, Research, IEMOCAP data-set, siamese architecture, multi-layered feed forward neural network**]

- Goal:- Emotion detection through speech signal without revealing user's identity
- To answer this question, implemented a machine learning model using IEMOCAP data set for speech signal to detect emotion without revealing user's identity with 88% accuracy
- Achieved 30% better performance than multi-layered feed-forward neural network

Invited Talks & Poster Presentations

2017	**Presenter**, Presented a poster on **multiway merge sort** at GRAD-COHORT	*Washington DC*
2014	**Speaker**, Gave an expert talk on **minor incident reporting system** at Intel India in collaboration with Bangalore Google developer group	*India*
2013	**Speaker**, Gave a technical talk at a workshop conducted by AICTE on topic - Genetic Algorithms problem solved by MapReduce programming on big data-set at Acharya Institute of Technology	*Acharya Institute of Technology, India*

Honors & Awards

2021	**Oracle 2021 Quartely Shout-out callee**, For contribution on Oracle "non-decrimiated hiring" project	*Seattle, WA*
2020	**People Choice Award Winner**, Oracle annual Hackathon - MadHacks	*Seattle, WA*
2019	**Scholar**, UnernehmerTUM Digital Product school	*Berlin, Germany*
2019	**Awardee**, Diversity Scholarship to attend PyData conference	*London*
2019	**Scholar**, Intel Edge AI Scholarship Program	*USA*
2019	**Winner**, Intel's smartest brain sweepstakes contest	*USA*
2019	**Finalist**, NCWIT collegiate Award for the "privacy-preserving emotion detection research"	*USA*
2019	**Scholar**, NCWIT Change Leader Scholar	*USA*
2016, 2017, 2018	**Recipient**, Grace Hopper Department Scholarship	*USA*
2018	**Winner**, BDAthlon programming contest	*Online*
2018	**Scholar**, Udacity Bertelsmann Data Science Scholarship	*USA*
2017	**Finalist**, Anita Borg Institute's student board of member committee	*USA*
2014	**Scholar**, Google Women Techmaker scholarship to attend Europython conference	*Berlin, Germany*
2013	**Scholar**, Government of India scholarship	*India*
2013-2014	**Scholar**, MHRD (Ministry of Human Resource Development, Government of India) scholarship for M.Tech duration	*India*