GIRIDHARAN ANBARASAN

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EDUCATION

NEW JERSEY INSTITUTE OF TECHNOLOGY   **Jan 2020 - Dec 2021**
Master's in Data Science   GPA - 3.65

ANNA UNIVERSITY, INDIA   **Aug 2013 - May 2017**
Bachelor's in Information Technology   GPA - 3.6

PROFESSIONAL EXPERIENCE

ICREDITWORKS, USA - SOFTWARE DEVELOPER IN DATA   **Jan 2022 – Present**
INSIGHTS AND ANALYTICS MODULE LEAD
Software Developer - Python Developer, Data Science and Engineering at iCreditWorks.
- Implemented REST APIs for Web-based Analytics using Python, Sanic and python libraries and exposed them to stake-holders and clients.
- Remodeled the analytics data pipelines and data processing, automated the pipelines using Airflow and migrated the reports to this new eco-system.
- Proposed, designed and implemented OLAP solution in Snowflake and automated the data ingestion using Airflow and Python.
- Developed interactive dashboard using Power BI for Insights and Analytics focusing business KPIs and translated the reports to help business decisions.
- Implemented Daily Finance Activity and summary reports using Python and libraries; automated the reports delivery via email using SMTP and SFTP.

MILLIPORESIGMA, USA - DATA SCIENTIST CO-OP   **Jun 2021 – Dec 2021**
PREDICTIVE ANALYTICS USING HIERARCHICAL MODELING
Improved on-time delivery statistics from 81% to 95% using predictive analytics. And the resulting efficiency improvements equate to 1.18M Euros per year.
- Analyzed over 300K records of historical Biotesting studies data and the time taken to complete each process in the testing life cycle.
- Performed Data Wrangling and developed a hierarchical machine learning model to predict the expected duration for future studies to go through each stage in testing life cycle.
- Deployed the ML model in the application which has mechanisms to monitor the current state of each study in the queue, evaluate their on-time status, highlight studies that are at risk of being not on time and support prioritizing them.

ZOHO CORPORATION, INDIA - BACKEND WEB DEVELOPER   **Jan 2017 - Dec 2019**
Java Developer and Modules Head at Zoho Desk, the first context-aware help desk software that helps businesses focus on the customer.
- CHAT MODULE HEAD
  Implemented two-way integration between Zoho Desk and Zoho Chat; Implemented chat support that allows customers to use chat through chat widgets with zobot (chat bot) in their websites; Reduced the customer queries by 70% upon releasing versions and updates.
- GAMIFICATION MODULE HEAD
  Designed and developed Gamification module that engages the agents with their customers by awarding points and badges based on their response time, number of threads to close an issue and escalation levels.
- REAL-TIME UPDATES MODULE HEAD
  Integrated Zoho Desk with Zoho WMS (an internal Zoho messaging system); Designed a Manager Dashboard that shows list of online and offline users along with their open and closed tickets, customer ratings and other information.
- AGENT COLLISION MODULE HEAD
  Developed Agent Collision module that prevents accidental collision by alerting agents, when accessing a ticket, with list of agents who are viewing, editing, or drafting the same ticket.

PROJECTS

- ONLINE ORDERING SYSTEM
  Designed and developed an e-commerce website for a local business that lists products and allows users to place an order. Features include user account, wish list, cart, and online payment portal. Integrated MySQL and Hibernate with Java backend, developed front end with JavaScript, HTML and CSS and used Gradle to compile, build and host the project on GitHub.
- PAGE-RANK ESTIMATOR MODEL
  Designed, implemented, and tested page-rank model of all nodes in a web graph using Directional Graphs in Java.
- AWS DEEPRACER ON REINFORCEMENT LEARNING
  Trained an RL model on vehicle in a simulated environment, that can be transferred to the real world; model runs on AWS.
- EMAIL SPAM FILTERING USING NATURAL LANGUAGE PROCESSING
  Developed Naïve Bayes classifier using sci-kit learn that can investigate 100s of E-Mails or SMS and detect spams with an accuracy of 99%.
- FIGHTING CORONAVIRUS WITH AI AND DEEP LEARNING
  Developed Deep Learning algorithm using CNNs and Res-Net to classify COVID 19 using Chest X-Ray images with an accuracy of 95%.
- TIME SERIES ANALYSIS OF SALES
  Developed a model using Facebook's Prophet to predict the product sales at any given period to facilitate inventory management.
- ESTIMATION OF AIRPORT CHECK-IN FACILITIES
  Implemented a dedicated queue for first class and coach passengers and displayed the durations of the simulation, maximum length of the queues, average and maximum waiting time for each queue and rate of occupancy of each service station using Java and Data Structures.
- TWITTER REAL-TIME STREAMING APPLICATION
  Implemented a mapping application that allows users to view a real time stream of Twitter hash tags using Node.js and D3.js.

SKILLS

- **PROGRAMMING SKILLS**
  Python, Java, R, SQL, HTML, C, C++
- **DATA AND CLOUD:** MySQL, Snowflake, AWS
- **INTEGRATED DEVELOPMENT ENVIRONMENT**
  Eclipse, Visual Studio, PyCharm, Jupyter Notebook

- **TOOLS AND PLATFORMS**
  Git, Palantir, MySQL Workbench, Postman, Docker, Airflow
- **MACHINE LEARNING LIBRARIES AND TOOLS**
  Python, Keras, PySpark, PyTorch, TensorFlow, OpenCV, Sci-kit learn, Pandas, Plotly, Dash, Matplotlib, Seaborn, MATLAB, Tableau

CERTIFICATION

Google TensorFlow Developer Certificate   **May 2021 - May 2024**