Manju Malateshappa

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EDUCATION

- **Simon Fraser University** — Burnaby, Canada
  Master of Science in Computer Science (Big Data) — *August 2019 - May 2021*

- **University Visvesvaraya Colege of Engineering** — Bangalore, India
  Bachelor of Science in Computer Science — *August 2009 - June 2013*

PROGRAMMING SKILLS

- **Languages**: Python, Javascript, Typescript, SQL, NoSQL, HTML, CSS/SASS
- **Libraries and Frameworks**: Scikit-learn, TensorFlow, React, Nodejs, D3.js, Django, IBM NLU, chatGPT

EXPERIENCE

- **Alida Inc** — Vancouver, Canada
  Senior Artificial Intelligence Engineer - Full time — *May 2021 - June 2023*
  - Led the successful implementation of AI services, including **content parsing**, **PII masking**, and **conjoint analysis**, using **Node.js** and **Python** for comprehensive text analysis and market research.
  - Productized AI services using **Docker**, **Terraform**, and **Kubernetes (EKS)**, simplifying deployment and enhancing scalability for seamless service delivery.
  - Assisted in scaling up the infrastructure for AI services using **Terraform**, enabling seamless handling of increased workload and ensuring **scalability**.
  - Played a key role in building an **AI pipeline** for text analysis services, leveraging **Node.js** to create a scalable solution
  - Coordinated with the Data Engineering team to process **15 million records** through the AI pipeline, ensuring efficient data processing.

- **Nagra Kudelski** — Bangalore, India
  Software Engineer - Full time — *January 2014 - August 2019*
  - Resolved critical customer issues in products used by over **3 million users**, debugging complex **JavaScript**, **React.js**, and **Node.js** code.
  - Successfully delivered **3 projects** with **100%** on-time UI deliverables, ensuring efficiency and high quality.
  - Designed and developed highly scalable and maintainable embedded applications using **HTML**, **CSS**, **SASS** and **JavaScript**, optimizing performance for low-end platforms.
  - Provided effective solutions for various **performance issues**, including boot-up, screen navigation, and UI rendering.
  - Implemented **Jasmine and Selenium automation** to enhance feature quality and prevent regressions.

PROJECTS : BIG DATA & MACHINE LEARNING

- **Model Fairness and Transparency**
  - Addressed biases in machine learning by analyzing COMPAS recidivism data and implementing **deep neural network classifiers** (DNNClassifier) in **TensorFlow**.
  - Ensured fairness and transparency in the model by identifying and mitigating biases using advanced tools such as **IBM AI Fairness 360** and **Google WhatIf Tool**.

- **Airbnb data analysis**
  - Conducted web scraping of Airbnb data and performed ETL using Beautiful Soup, storing the data in AWS S3 for analysis.
  - Leveraged Python pandas, TextBlob, and Scikit-learn to analyze data, perform sentiment analysis, build ML pipelines, and identify key factors for becoming a super-host: high response rate, low cancellation rate, positive sentiment score, and good neighborhood.

- **Facial landmark detection models using ensemble of regression trees**
  - Developed a highly scalable face swap software by building a machine learning model using **dlib**, **OpenCV** and **python**.
  - Hyper-tuned parameters (Nu, Depth of the tree, cascade, feature pool size, number of test split, oversampling) in **ensemble of regression trees** to get better **accuracy** in a less complex model.

Publications (links)

Automatic land use/land cover classification using texture and data mining classifier, published in: 2013 IEEE International Conference of IEEE Region 10 (TENCON 2013), 22-25 Oct. 2013.

Certifications

- **Coursera deeplearning.ai**
  Neural Networks and Deep Learning   *Completed on February 22, 2020*
  - Built, trained and applied fully connected deep neural networks.
  - Gained strong expertise in implementation of efficient (vectorized) neural networks.
  - Understood the key parameters in a neural network's architecture which is important for fine-tuning the coefficients in order to improve the performance.

Hackathon Experience

Alida Hackathon (17-18 March 2023) - Winner
- Automated PR generation on GitHub using **ChatGPT** and Git diff, winning the hackathon by showcasing a game-changing software engineering use case.

Alida Hackathon (17-18 March 2022) - Winner
- Developed an innovative AI-based **classification** solution to accurately identify speedsters among survey respondents, revolutionizing data analysis and enabling data-driven decision-making
- Demonstrated exceptional technical expertise by successfully integrating the AI solution into the renowned Alida platform, resulting in enhanced survey insights and recognition as the winner of a prestigious hackathon

Dish-a-thon: India's first and largest Media and Entertainment & Broadcasting Industry Hackathon (16-17 June 2018)
- Successfully created a demo-able product (Interactive advertisements on Television User Interface) using **HTML**, **CSS**, **JavaScript**, **Python** and **OPENTV** platform for the presentation.

NAGRA KUDELSKI group Hackathon (17-18 September 2018)
- Engineered a state-of-the-art fire safety algorithm in **Python**, paired with a captivating **React.js** front-end UI, earning accolades from the esteemed Nagra Kudelski group..

Other Experience

- **Simon Fraser University**   Vancouver, Canada
  Teaching Assistant (Programming in Python) - Part time   *September 2019 - December 2019*
  - Assisted and mentored students in group size of 10 to 20 by reviewing lesson teachings and also helping them to solve coding assignments in the labs.
  - Supported instructor playing roles in test administration, curriculum development, reviewing exams and assignment grading.

- **Obezod Service Apartment**   Bangalore, India
  Managing Director   *April 2016 - August 2019*
  - Founded and financed a profitable hotel, providing on-demand accommodation to tourists and travelers with a personal investment of USD 6000. Employed a team of 4 individuals to handle daily operations
  - Achieved impressive returns within a year by implementing successful business strategies, resulting in an annual turnover of approximately USD 21000.