SUPRIYA PILLAI

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EDUCATION

PROFESSIONAL CERTIFICATE IN MACHINE LEARNING AND ARTIFICIAL INTELLIGENCE, 2022
University of California, Berkeley

DEEP LEARNING CERTIFICATION - FAST AI, 2020
University of San Francisco California

MASTERS OF INFORMATION TECHNOLOGY, 2019
Griffith University, Queensland, Australia
Relevant Coursework Included: Machine Learning, Python Programming, Data Analysis with Python (Numpy,Pandas), Social Media Analytics, Software Development.

BACHELOR OF COMPUTER SCIENCE, 2014
Panimalar Institute of Technology, India
Relevant Coursework Included: Linear Algebra, Probability and Queuing Theory, Artificial Intelligence, Statistics, Calculus, Computer Graphics, Object Oriented Programming

PROFESSIONAL EXPERIENCE

PETRA DATA SCIENCE, BRISBANE, AUSTRALIA, AUG 2019 – MARCH 2021
DATA SCIENTIST

- Experience tuning, validating, optimizing, visualizing, and debugging models.
- Experience gathering requirements, and taking concepts from prototype to production.
- Built visualizations to convert raw spatial data into digestible reports that help drive better business decisions.
- Experience working with large real-time data streams for **anomaly detection**.
- Lead developer in building models that reduced crusher downtime, which led to a **10% cost reduction.**

NEURALBOX.AI, QUEENSLAND, AUSTRALIA, JUNE 2020 – CURRENT
CO-FOUNDER

- Developed after participating in a Defence Australia hackathon.
- NeuralBox.ai offers explainable, privacy-preserving Computer vision and **Natural Language Processing solutions** for defence and other sectors.

PRINCE CHARLES HOSPITAL, BRISBANE, AUSTRALIA, FEBRUARY, 2019 – MAY, 2019
WORK INTEGRATED LEARNING

- Achieved the design and development of a web platform for researchers to collaborate, find and join in projects.
- Provided management for the project, client presentation, and a **team of six members**.

SEEKOUT TECHNOLOGIES, CHENNAI, INDIA, MAY 2015 – MAY 2016
SOFTWARE DEVELOPER

- Tasked with the design and development of company portfolio websites.
- Responsible for developing an e-learning web application.

- Contributed to the design and implementation of a customer-focused web application, and provided general information for our stakeholders.

PROJECTS AND COMPETITIONS

Currently ranked **2 out of 3000+** registered participants on AnalyticsVidhya's ongoing **people detection and headcount computer vision** challenge

AI solutions for Australian Defence Force and Newzealand Defence Force

- Developed deep learning models that helps in early bushfire detection using satellite and drone images; Predict building damages using satellite images after a disaster; understanding disaster tweets and plan Supply chain management accordingly.
- Invited by the Department of Defence, Australia for a panel discussion to pitch our product with their team.

TECHNICAL SKILLS

*Experience in Data Science, **Data Visualization**, statistical analysis, data structures and Algorithms, Forecasting, AB testing, machine learning, deep learning, pattern recognition, anomaly detection, data mining, computer vision, Natural Language Processing*

Data Science Tools:	**Python**, Numpy, **Pandas, scikit-Learn**, Spark MLlib, **Matplotlib,** Tableau, Seaborn, Scipy, Plotly, Dash, clustering, Mapbox, PyTorch, Fastai, **Tensorflow,** Shap interpretation.
Programming Languages:	Python, SQL
Deployment:	AWS, API Gateway, Lambda functions, step functions, dynamodb, Athena databases
Product Prototype:	HTML, CSS, JavaScript, VueJS

AWARDS AND HONORS

Finalist, Flatten the Curve Hackathon, Australian Computing Society

Acquired chest X-rays of COVID-19, pneumonia, and normal data, and developed a computer vision model to diagnose COVID-19 faster. This model was **98% accurate** on unseen test data. Accuracy, f1-score are used as an error metric. Heatmap model visualisation is made for model interpretation.

Received an Honourable Mention from Dr Junling Hu, Lumiata COVID – 19 Global AI Hackathon

- Accountable for having developed a deep learning (convolutional neural network) model that was trained on COVID-19 data, along with pneumonia and normal chest x-rays.
- Included other metadata related to COVID-19 patients to answer questions such as Could this patient stay at home or need an ICU? If a patient needs an ICU, for how many days? What is the survival rate of this patient? How he is going to respond to a particular treatment?

Nominated for Women in Technology Award

Category Nominated: Young Achiever - Technology - Innovation in Technology

ADDITIONAL INFORMATION

Websites: Blog: http://supriya.org/; Linkedin: https://www.linkedin.com/in/supriyamk/