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| Vivek Ananthan  Sr Machine Learning Engineer / MLOPs Engineer  Bangalore   |  |  | | --- | --- | | Envelope with solid fill | [vivekananthan\_ms@hotmail.com](mailto:vivekananthan_ms@hotmail.com) | | Speaker phone with solid fill | 91- 8778545803 | |  | |  |  | | --- | --- | | GitHub | <https://github.com/wickkiey> | | Portfolio | <https://wickkiey.github.io/> | | LinkedIn | <https://www.linkedin.com/in/wickkiey/> | | AV | shorturl.at/zJOU9 | | |
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| Experience (9 Years) |  | | Education |
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| July 2023 - Present  Fortive  **LLM based RAG for Unstructured and Structured Data**   * Implemented a **Retrieval Augmented Generation (RAG)** system for managing both structured and unstructured data, enhancing data organization and accessibility. * Developed an automated metadata extraction process using **SQLAlchemy**, improving efficiency in data handling. * Utilized **Vector DB** for metadata search, enhancing search accuracy and speed. * Designed custom agents for query generation and execution, optimizing data retrieval processes. * Established a batch feedback loop for continuous improvements, ensuring the system stays updated and effective. - Azure OpenAI, Langchain, Vector DB, SnowFlake   Jan 2019 – July 2023  Happiestminds Technologies  **Loan Default and Conversion Analysis** (Team Lead)  **Client**: US Based Banking consultancy   * Developed and deployed a loan default prediction model for short-term loans. Increased the revenue by reducing the Loan default rate from 34% to 18%. * Designed and deployed a conversion model, to predict whether the user will accept the Loan. Reduced the cost by not spending on the conversion process. * Implemented Data and Model drift and integrated CML (Continuous machine learning) pipelines. * CatBoost, H2O, AWS Lambda, Feature tools, MLFlow, DVC   **Product Image Validation & Demand Forecasting  Client:** US Based on major OEM Supplier   * Developed and deployed an image segmentation modeling pipeline (augmentation, training, finetuning, auto deployment) to detect manufacturing products. Reduced the manual efforts and increased the throughput from days to hours of verifying whether right product is being uploaded in the portal. * U-Net, Mobilenet V2, Tensorflow, Tesseract, Airflow, Docker * Designed and deployed a segmentation mode to group similar items sold with demand history data. * Implemented demand forecasting model on big-data. Improved the revenue and reduced the store life time of products. * PySpark, SparkML, Databricks, Azure Data Factory, ADLS * Built and published Power-BI Dashboard and included KPIs and business metrics.   Built anomaly detection and failure detection for IOT Event hub streaming data.  **Intelligent Image Search**  Client: US based Energy & Production Organization   * Implemented and deployed Image based search engine. Developed a pipeline to curate the content with Object Detection and OCR and built a search engine on top extracted features (Image Embeddings + Objects + text). - Resnet, EasyOCR, OpenCV, Bigquery, Computer Vision   **Integrity Application (**Face Recognition**)**  **Client**: Happiestminds   * Implemented and deployed a face recognition application to identify integrity though-out the interview process. Identified few incidents where different people attending different rounds for same interview. * Deep Face, OpenCV, FastAPI, Angular, Computer Vision   Feb 2016 – Dec 2018  Aagnaa Software Labs (Product Based, Vision)   * **Virtual Try-On** Implemented an AR (augmented reality) product that drapes digital cloth contents over the user’s body in real-time video stream. Deployed in PN-RAO & Raymonds Bangalore for suits and ties.  - C++, Python, Keras, Kinect & Real Sense SDKs <https://www.youtube.com/watch?v=Hq7hgClsHJ4> * Developed hand gesture model with 3D depth frames - Keras, Python * Recommendation Engine  Built both User & Product based recommender systems for multiple online Retail Industries.   Jun 2014 – Feb 2016  Cognizant Technology Solutions   * Streamlined data integration and validation using rule-based engines. * Developed a query classification module leveraging natural language processing (NLP). * Generated insightful reports and visualizations from distributed data. * Implemented data exploration modules for meaningful insights. |  | | 2017 - 2018  PG Diploma in Data Science  Upgrad - IIITB  2009 – 2014 (Integrated)  M.Tech (CS Engineering)  Anna University – Tirunelveli Domain Experience Manufacturing, IOT, Edu-Tech, Energy, Health Care, Retail Achievements  * Secured 3rd place in AnalyticsVidhya Dataverse hackathon. Nov 2022 * Won 1st runner-up in the Annual Happiestminds hackathon. * Secured 4th place in “You Hack the Virus” hackathon from Hacker Earth.  Won multiple quarterly & Annual awards in Happiestminds. |
| Technical Skills |
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| **Programming languages**  Python, PySpark, C++, SQL, Angular, Nodejs  **Frameworks**  Tensorflow 2x, PyTorch, Sklearn, H2O, OpenCV, Optuna, Boosting libs, SHAP, Lime, FiftyOne  **ML OPs**  ML-Flow, DVC, Airflow, Kubeflow  **Containerization Platform**  Docker, Kubernetes.  **Cloud Platforms**  GCP Compute Clusters, Colab, Big-Query  Azure Machine Learning, ADLS Databricks, LUIS, QnA, ASA, Functions, Power-BI  AWS VMs, Lambda, Sagemaker |
| Infrastructure as Code  * Terraform * Bicep  |  | | --- | | Roles | |  |  * Managing Internal IP frameworks and services. * Training juniors on Machine Learning Deep Learning and MLOps * Guiding MVPs to acquire new clients. |
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| |  | | --- | | Certifications | |  |  * Deep Learning Specialization – Coursera * Tensorflow Professional (Deeplearning.ai) * The complete PowerBI practical course. * [Vivek Ananthan’s Courses & Certifications](https://www.linkedin.com/in/wickkiey/details/certifications/) |

**Declaration**

I hereby declare that the above-mentioned details are true to my knowledge.

Vivek Ananthan