KAMALAM SIVAKUMAR

+91-9585518718 | kamalamsivakumar@gmail.com | Current Role: AI/ML Research Engineer
github-kamalamsivakumar | linkedin-kamalamsivakumar

PROFICIENT

Python	torch, tensorflow, keras, scikit-learn	C++
Machine Learning	LangChain, Huggingface	SQL
Deep Learning	AWS & Azure	

NOVICE (CAPABLE & LEARNING)

django
streamlit
Git

EDUCATION & CERTIFICATION

M.Sc Data Science (Integrated) | 2017 - 2022
PSG College of Technology, Coimbatore, India
Grade: 8.53/10
AWS Solutions Architect Associate
Azure AI Fundamentals

INTEREST AREAS

Preference Learning: Enhancing AI systems to align with human preferences and behaviors.
Reinforcement Learning: Developing strategies for efficient decision-making.
Interpretability: Transparent, understandable AI models.
AI Planning: MDP, stochastic modelling, and other heuristics

PROJECTS

spectra_net [code]
Deep Learning and Clustering for **Hyperspectral Image Classification**. Aims to **compare CNN and Clustering Algorithms**. While K-Means showed better separation, both clustering algorithms demonstrated moderate performance relative to the CNN's accuracy.

schedule_it [code]
Task Scheduler developed using Reinforcement learning techniques such as **Q-Learning** and **Double Q-Learning**, using Python.
The tasks are scheduled based on the CPU and Memory resources available at a single point in time.

clip_search
Developed and productionized an advanced **image retrieval system** leveraging **CLIP** for a design/embroidery client.
Built a vector store of image embeddings and implemented efficient search via **Azure services**.

heldig-selective (On-going project) [code]
Developing a model to customize wallpaper selections in a random generator app by **fine-tuning user preferences** with **ORPO**. The project is ongoing, focused on **boosting recommendation precision**.
Future Work: Plan to explore model interpretability to assess ORPO's impact on preference alignment.

PROFESSIONAL EXPERIENCE

Kryptos Technologies, Chennai — **May 2024 - Present**
AI/ML Research Engineer
- **Leveraging gen-ai** to effectively handle admin tasks such as transcription and proposal writing.
- Aiding development and integration of gen-ai tools within **Customer Solutions**.
- **Researched, developed, and integrated** gen-ai tools into Customer Solutions, **delivering multiple PoCs** tailored to customer needs.

Everstage, Chennai — **Oct 2023 - Feb 2024**
Business Analyst
- Developed a comprehensive **understanding** of **customer data requirements.**
- Contributed to enable stakeholders with **reports**, for them to gather insights.
- **Collaborated** with the **Internal Revenue Operations (RevOps)** team to support various tasks.

KPMG, Bengaluru — **Jan 2022 - Aug 2023**
Consultant
- **Audit Analytics**: Automated audit processes using **Python and Alteryx**, speeding up process handling. **Refactored** a process, **reducing runtime** from 2 days to just 10 minutes—a **99.65%** improvement in **efficiency**.
- AWS Solutions: Built a pipeline with Kinesis, Glue, S3, and Redshift to process and store streaming data.

HCL Technologies, Noida — **Jul 2020 - Oct 2020**
ERS Team Intern
- Designed Price comparison logic for Industrial Customers to manage their Inventory and update minimum prices effectively.
- **Developed** intricate backend logic for scraping and refining data sourced from competing websites. **Continuous learning** and **improvement of software development processes,** also focused on **learning best practices.**