SIVALINGAM AMPATISHAN

Edmonton, AB | (825) 461-6147 | sivalingam.ampatishan@amii.ca

Machine Learning Engineer with 5+ years of experience deploying end-to-end ML solutions in high-growth, customer-facing environments. Skilled at working directly with clients and cross-functional stakeholders to translate business needs into measurable ML outcomes. Proven success in developing and productionizing models for churn prediction, customer segmentation, campaign optimization, and digital personalization.

Adept at leading technical discussions, running discovery workshops, and communicating complex ML concepts to non-technical audiences. Experienced in building scalable ML pipelines, integrating models into cloud systems, and coaching teams through the ML development lifecycle. Proficient in Python and key ML frameworks including PyTorch, Scikit-learn, and XGBoost. Passionate about ethical, impactful AI and driving business transformation through machine learning., high-impact solutions.

CORE SKILLS & COMPETENCIES

- Market optimization
- Programming & Data Science
- Project Management
- Computer Vision

- Algorithm Design & Implementation
- Effective Communication
- High Performance Computing
- Generative AI

- MLOps
- Cross-Functional Collaboration
- Software Development
- Image Segmentation

Technical Acumen: Python | Spark | Hadoop | Airflow | AWS | PyTorch | Tensorflow | Scikit-learn | C++ | OpenCV

PROFESSIONAL EXPERIENCE

Machine Learning Scientist | amii | Edmonton   **August 2025 – Present**

Leading the end-to-end research and development lifecycle for industry partners by bridging the gap between fundamental machine learning techniques and high-value business applications. Driving the digital transformation of diverse sectors by identifying high-impact ML opportunities, scoping technical roadmaps, and developing robust proof-of-concepts. Providing scientific leadership and technical coaching to accelerate the adoption of AI, ensuring both technical excellence and commercial scalability for global clients

Key Responsibilities:

- **Strategic Project Scoping & Discovery:** Collaborating with industry partners to translate complex business challenges into actionable ML projects, determining data requirements, and defining success metrics.

- **Technical Leadership & Coaching:** Guiding client teams through the model-building process and mentoring junior scientists to ensure the delivery of high-performance, ethical AI solutions.

- **Cross-Functional Impact:** Articulating complex scientific findings to executive stakeholders while overseeing technical deliverables to ensure alignment with industry standards and commercial goals.

Associate ML developer | Altaml | Edmonton   **May 2024 – Aug 2024**

Collaborated closely with clients to define and scope project objectives, ensuring alignment with business goals and requirements. Worked on data collection efforts and conducted foundational modeling to support project deliverables. Maintained continuous communication with clients, facilitating ongoing discussions to gather feedback, address evolving needs, and refine solutions, ensuring optimal alignment with client expectations and project outcomes.

Key Responsibilities:

- **Business & Technical Alignment:** Collaborated with clients to define and scope project objectives, ensuring alignment with business goals and technical requirements. Maintained continuous communication to gather feedback, address evolving needs, and refine solutions for optimal outcomes.

PROFESSIONAL EXPERIENCE (CONTINUED)

- **Machine Learning Development:** Assisted in researching, developing, and maintaining ML models, leveraging supervised, unsupervised, and heuristic learning techniques to support advanced analytics initiatives.

- **Data Engineering & Model Optimization:** Supported data collection and preprocessing efforts, ensuring high-quality datasets for ML models. Applied feature engineering, model selection, and validation techniques to enhance model performance and reliability.

Data Scientist | Ada-Asia | Sri Lanka   **February 2020 – April 2022**

Responsible for developing models to optimize product and digital advertising solutions, supporting client companies in setting measurable KPI targets to elevate business performance. Utilized machine learning techniques and algorithm to analyze and process high-volume IP information, eliminating bad data to identify significant trends, map out usage, and develop strategies to maximize customer experiences. Managed a wide range of projects within 4-6 month time periods, collaborating with a diverse team of professionals to successfully complete deliverables within tight deadlines.

Selected Accomplishments:

✓ Developed an innovative telco churn prediction model that enabled accurate analysis of customer usage patterns to forecast churn rates, allowing carriers to improve client retention strategies and drive revenue growth.

✓ Utilized data cleaning techniques, graph-based algorithm, and analytical tools to generate IP addresses of individual family members and create an ID system unique to every household, improving relationships between families. The project served as valuable reference to fuel new company initiatives, substantially increasing revenue opportunities.

Key Responsibilities:

- *Data Analysis:* Leveraged sound knowledge of analytical techniques and technology tools to process and interpret complex data, designing and implementing systems aligned with project goals and client requirements. Conducted extensive research and data analysis to develop valuable solutions that optimize system performance, refine processes, and inform strategic decisions.

- *Data Presentation:* Translated findings into detailed, comprehensible information, presenting end deliverables to teams through dashboards and ensuring solutions remain accessible internally for streamlined implementation.

- *Solution Development:* Effectively navigated through challenges in establishing correlation between client data and project objectives, employing data optimization strategies to create tailored solutions and achieve project targets.

- **Software Development & MLOps:** Assisted in developing and integrating ML models into production environments using Python, Spark, and cloud-based platforms, ensuring seamless deployment and scalability.

- **Technical Communication & Collaboration:** Effectively communicated ML concepts to stakeholders, translating complex methodologies into actionable insights. Worked within diverse, cross-functional teams, including software developers, data engineers, and business analysts, to drive innovation in AI-driven solutions.

ACADEMIC ACCOMPLISHMENTS

Master's Degree in Medical Science | University of Alberta | Edmonton, AB   **Jan.2025**

Bachelor's Degree in Electronic & Telecommunication Engineering | University of Moratuwa | Sri Lanka   **2020**