

## JOEL JOSEPH THOMAS

**SUMMARY:**

Software Professional with 7 years of experience executing data-driven solutions to increase E-commerce internal data processing efficiency & accuracy. Experienced in implementing various supervised & unsupervised Machine Learning & Deep Learning algorithms. Coordinated with business & engineering teams across all development life cycle phases. Strong work ethics in team or individual setting to drive product success & product efficiency. Project leader with a track record of completing critical milestones & delivering products on time. Strong troubleshooting & problem-solving skills with an analytical mindset. Fast learner with strong time management & multi-tasking skills.

**WORK EXPERIENCE:****SUPPORT ENGINEER III (Amazon)**

**February 2022 - June 2023 (Toronto, Ontario, Canada)**

- Worked on an **agile** project to translate & migrate 6-7 scripts from a **Shell**-based Non-Native AWS to **Python**-based Native **AWS** environment. Besides, took **ownership** to develop few scripts internally as part of the new process addition for reporting purpose i.e., user & admin Photon Tool usage metrics, Global Ticket Age Notifier, Software OTA adoption rate, etc.,
- Implemented **throttling & rate-limiting** mechanisms to handle the input traffic while processing various device log files (Timber) for an internal tool as part of the **Correction-Of-Error** measure.
- Participated in a **pilot Machine Learning** project, a tool to classify different types of device errors based on the logs generated by performing **data extraction & cleaning** such as removing **stopwords, lemmatization, de-contraction**, etc., **feature engineering** using **Natural Language Processing** techniques such as **TF-IDF & Word2Vec word embeddings** & experimenting various algorithms such as **Support Vector Machines, Bagging & Boosting, Naïve Bayes & Artificial Neural Networks**. Thus, assisting the ticket handling device associates in identifying the actual issue by saving time & removing doubt while debugging logs manually.
- Created **dashboards** using **data tables, graphs & KPIs** for monitoring various device metrics via **Amazon QuickSight** tool & learn about the top trending issues & engage with various device **DEV & QAE** teams to address & fix the issues swiftly. Thus, providing Amazon customers with best product & user support experience. Besides, helped my team solely in the **SQL database & table** migration process as part of Amazon-wide data security policy update.
- Partnered with an external development team to create a **Java**-based script to synchronize e-book user rights between original data source & external digital rights tool to eliminate uncertainty while debugging read right issues on e-books reported by an Amazon customer.
- Enhanced the Photon tool (used by Amazon CS team) by implementing changes on both the user interface (**ReactJS**) & back-end (**Java**). Thereby, integrating a new feature that fetches the **OS** version & **firmware** details from external team **APIs** while troubleshooting an Amazon product for the customer reported issue. As a result, aiding the CS team in simplifying their **work** & saving **time** by working on a single standalone tool while **debugging & troubleshooting** device related issues instead of relying on multiple tools & APIs.
- Assisted my team by working on various customer **tickets** related to HW & SW related issues across all Amazon devices thereby providing accurate & efficient **troubleshooting** solutions.
- Collaborated with **Product Managers, Technical PMs, DEV & QAE** teams for new product launches w.r.t various Amazon devices & performing **QA beta** testing related to device **logs**.

**E-COMMERCE DATA ANALYST (Nature's Way of Canada)**

**July 2021 - December 2021 (Halifax, Nova Scotia, Canada)**

- Performed **exploratory data analysis** on Nature's Way products & its competitors to adjust optimal **pricing strategies** based on emerging online trends & ensure effectiveness on **Return-On-Ad-Spent**.
- Worked on a **data mining** project by creating a **Python** script to **web crawl & scrape** Amazon product pages & fetch relevant product information w.r.t NW competitors via **BeautifulSoup, lxml (ElementTree) & RegEx** libraries for rising product **selection & promotional tactics**.
- Co-ordinated with product & marketing teams to implement an **unsupervised ML** model for mapping new Nature's Way products into various **product groups, categories & sub-categories** via **clustering** such as **DBSCAN, K-Means, Hierarchal** & also predict the missing information on products using **K-Nearest Neighbors** Imputer, **Random Forest & Logistic Regression** algorithms.
- Designed a **specimen** model to understand geographical similarities w.r.t product sales via **clustering** techniques such as **K-Medoid, MeanShift, OPTICS & mini-batch K-Means**.
- Conducted **Hypothesis A/B testing** on NW products & **ADHOC** reporting for E-tail POS sales.

**ABOUT:****Address:**

24 Barnwell Drive, Scarborough,  
Toronto, ON Canada  
M1V1Y8

**Mobile:**

+1 902-499-2653

**Email:**

[joeljoseph26@yahoo.com](mailto:joeljoseph26@yahoo.com)

**Social & Project profiles:****SKILLS:**

Python	100%
Machine Learning	100%
Deep Learning	100%
SQL / MySQL / Hive	100%
GitHub	100%
Tableau / PowerBI	100%
Pandas / NumPy	100%
Anaconda Jupyter	100%
VSCode	100%
AWS / AWS Sagemaker	90%
Langchain	90%
Linux / Shell Script	90%
NLTK / SpaCy / GloVe	90%
AWS Sagemaker	90%
PySpark	90%
Keras / TensorFlow	90%
Sci-kit Learn	90%
Flask / Fast APIs	90%
Java	80%
JavaScript / ReactJS	80%
PostgreSQL / MongoDB	80%
Chat GPT LLMs	80%
LLAMA Index LLMs	80%
Google Gemini LLMs	80%
PyTorch	80%
MLFlow	80%
Seaborn / Plotly	80%
Matplotlib	80%
Streamlit	80%
Auto ML Libraries	50%
HTML / CSS	70%
C / C++	70%
Docker	70%

- Involved in creating few **MS PowerPoint** presentations for bi-weekly **leadership meetings** to discuss the **performance & cost** effectiveness of Nature's Way products w.r.t sales & revenue, product trails, etc.,
- Developed various **spreadsheets, charts & dashboards** using **MS Excel** formulas, **VBA, Power Query** editor & **PowerBI** for publishing reports such as **product revenue sales, Online Ads** spent, & **product impressions** on a weekly, monthly & yearly basis to **stakeholders** as part of the cohort analysis for Nature's Way products.

## DATABASE DESIGNER INTERN (Open Ocean Robotics)

June 2020 - September 2020 (Halifax, Nova Scotia, Canada)

- Created a **data model** to store information related to solar powered uncrewed surface vehicles & its observations alongside creating **stored procedures, views, functions**, etc.,
- Partnered in an end-end **NoSQL** database implementation using **TypeScript** along with **API** integrations.
- Conducted detailed analysis of various **Identity & Access Management** tools such as **Okta, OneLogin**, etc., based on the type of authentication methods & Single Sign-On options supported & also configuring the user **CRUD** permissions to access tables in the data model.

## SUPPORT ENGINEER I (Amazon)

September 2017 – July 2019 (Chennai, Tamil Nadu, India)

- Performed ticket handling as part of on-call support to create new services based on internal & external requests from different Ops teams & resolve other system-related issues & failures.
- Performed **data collection, preprocessing, analysis & visualization** on various kinds of data w.r.t E-Books, Videos, Periodicals & Music.
- Implemented rudimentary **supervised Machine Learning** algorithm such as **Random Forest & Decision Trees** for classifying product mappings which defines the availability of an Amazon product in its competitor's website across various GLs like clothing, games, furniture, etc. The project generated 2x more product mappings for price monitoring & also reduced the load on the crawler and scraper configurations by eliminating futile ASIN listings
- Served in a **Crawler migration** project i.e., migrating crawler configurations from **selenium**-based to **JavaScript**-based ones to handle convoluted JS enabled pages.
- Also, participated in **pilot** projects like **ASIN Impressions** (alternate mapping strategy to **Glance Views**) & **Canonical URLs** (removing duplicate product URLs w.r.t product mapping).
- Deep-dived the **root cause** of a plethora of issues such as **WPI metrics** drop, **coverage metrics** drop, **scraping & crawling** issues, & **ETL query** job **failures**.
- Partnered in a **query** migration project **JYU**, by translating 700 complex **SQL** to **Hive** queries that is used for internal & external reporting purpose related to **Pricing & Selection**.

## AUTOMATION SPECIALIST (AMAZON)

Chennai, Tamil Nadu, India (April 2017 – September 2017)

- Handled complex **XML** configurations in our internal tools for **crawling & scraping** purposes
- Worked as a **SME** on projects & led a team of 12 automation analyst for **Color** (rule-based mapping of a product color into a relevant color family) & **User Action** (capture JS based product pages via selenium tool) **Automation** projects saving **25 headcounts/week** with 99.5% **accuracy**.
- Generated various **reports, charts & dashboards** in **Excel & Tableau**. Later, shared it with our relevant **stakeholders** on a daily, weekly, & monthly basis.
- Involved in writing complex **SQL** queries for various **ETL** operations

## AUTOMATION ANALYST (Amazon)

Chennai, Tamil Nadu, India (April 2016 – March 2017)

- Demonstrated excellent business acumen & created several **XML** configurations in our internal tools for **crawling & scraping** purposes. Also, generated, analyzed & interpreted business & system relevant **metrics**.
- Performed **ticket** handling for various internal **automation requests & failures**

## RETAIL ASSOCIATE (Amazon)

Chennai, Tamil Nadu, India (March 2015 – March 2016)

- Performed **price & selection monitoring** for Amazon products with its competitors using market & current trend research with the latest Amazon tools
- **Process & project trainer** for new & junior retail associates & conducted **CAPA** sessions
- Worked as a back-up **subject matter expert**, maintained **coverage & productivity** reports

## CONTENT ASSOCIATE (Amazon)

Chennai, Tamil Nadu, India (April 2017 – September 2017)

- Worked in **auditing** Kindle e-books & validating the **quality** of the feature called Kindle Language Layer in Amazon Kindle devices to help non-native English speakers
- Also, worked in another feature X-Ray related to Amazon Kindle device to provide best customer reading experience

## EDUCATION HISTORY:

**Master of E-Commerce (Data Science – AI/ML)**

May 2021 | GPA: 3.5/4

Dalhousie University, Halifax, Canada.

**Bachelor of Electrical & Electronics Engineering**

April 2014 | GPA: 3/4

Anna University, Chennai, India.

## PROJECTS:

### MACHINE LEARNING:

- **Toxicity Detection** using **NLP** (Kaggle)
- Approval of funds via **Sentiment Analysis** (Research Paper)
- Meeting Evaluation via **Audio features & text** (self-project via sample audio files on YouTube)
- **Stock Prediction** using **LSTM**
- **Text Summarization** using **attention** models
- **Language translation** using **attention** models
- **LLMs** via **Google Gemini, Chat GPT** for **PDF querying & Q&A**
- **Object detection** via **HuggingFace** models
- Pneumonia **Image classification** with the help of **VGG-19, AlexNet, Inception**, etc. via **convolution & pooling** techniques

### VISUALIZATION:

- Created **Dashboards & charts** for various datasets
- Performed **data blending & clustering**
- Implemented **relationships & joins** for **dual-axis** charts, **dashboards & stories**

## CERTIFICATIONS & LICENSES:

- **Udemy** - Data Science A-Z™: Real-Life Data Science Exercises Included
- **Udemy** - Power BI A-Z: Hands-On Power BI Training for Data Science!
- **Udemy** - Tableau 2020 A-Z: Hands-On Tableau Training for Data Science
- **Udemy** - Modern Natural Language Processing in Python
- **Udemy** - Machine Learning A-Z™: Hands-On Python & R In Data Science
- **Google** – Natural Language Processing using Google Cloud

## REWARDS:

**Employee of the month:**

- March 2018 (Support Engineer)
- May 2016 (Automation Analyst)
- January & February 2015 (Associate)

## VOLUNTEERSHIP,

## LEADERSHIPS & OTHERS:

- DalSafe **Ambassador** & Committee member of CSGS, Dalhousie University
- Mathematics & Science **teacher** at Bhumi, India (NGO)
- Student Union **Leader**, Public relations **officer**, Student **President** in National Level Technical Symposium in Bachelors