# SRIVATSAN MADAPUZI SRINIVASAN

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## EDUCATION

**SINGAPORE MANAGEMENT UNIVERSITY**                                         **Aug 2022 - Aug 2023**
**Master of IT in Business** (Specialization: **Data/Business Analytics Track**)
Courses → Applied ML, Customer Analytics, Social Analytics, Data Science for Business, Visual Analytics, Statistics

**ANNA UNIVERSITY** – India                                         **Aug 2015 - May 2019**
**Bachelor of Engineering in Computer Science Engineering** - First Class Honors

## SKILLS

- **Programming Skills:** Python, SQL, R, SAS, Appian, C, C++, JAVA, HTML, PHP, JS
- **Data Science Skills**: Pandas, Numpy, Scipy, Matplotlib, Seaborn, NetworkX, MS Excel, Statistics
- **Machine Learning Skills**: Scikit-learn, NLTK, NLP, Spacy
- **Deep Learning Skills**: Tensorflow, PyTorch, Transformers
- **Data Management Skills:** Apache Hadoop, Spark, HIVE, AWS, Databricks
- **Data Visualization:** PowerBI, Tableau, R Shiny
- **Version Controls**: Anaconda, GitHub, Jupyter, VS Code

## PROFESSIONAL EXPERIENCE

**HOOVER MELAMINE** – Singapore                                         **Apr 2023 – Jun 2023**
**Customer Analyst (SMU-X Student)**
- Utilized RFM analysis on transaction data to identify various customer segments.
- Computed the CLV of different customer segments to determine the most valuable and loyal customers.
- Improved customer retention rates by implementing Personalized Marketing, Rebate Programs, and Bundle Promotion strategies.
- Developed marketing plans to attract customers, which might potentially increase the sales revenue by 5% (approx.).

**Applied Skillsets:** Python, Pandas, Excel, SAS Enterprise Miner, Tableau
**Accolades:** The organization appreciated the simplicity and implemented the suggested rebate program and bundle promotion strategy.

**WNS VURAM** – India                                         **May 2019 – Jun 2022**
**Senior Technical Consultant**

**Infrastructure Lending – Fintech Project**
- 3+ years of experience in Appian, with a track record of 100+ successful deployments to production.
- Redesigned the Database Table Schema (Normalization), resulting in a 10% improvement in the efficiency of data retrieval (Indexing).
- Implemented a dashboard for stakeholders to view infrastructure and profit details in PowerBI and Appian.
- Integrated Bloomberg API to present deal risks to Infrastructure Lending organizations to make informed decisions.
- Implemented a time-series forecasting method (ARIMA) that assesses credit risk quarterly based on past repayments, reducing risk by 5-10%.
- Automated ETL process from the legacy system to the new application through rule-based processing.
- Engineered a security management system to manage ACL, resulting in a 30% increase in client productivity.

**Applied Skillsets:** Appian SAIL, Process Modeler, Connected System, Integration, MySQL, Python, Pandas, Matplotlib

**Breach Management System**
- Collaborated with multiple business departments to incorporate Breach Management practices across the organization.
- Analyzed patterns of past breaches to identify common vulnerabilities and automated a system to act accordingly.
- Constructed PyTorch CNN for breach-type estimation using statistical features, achieving 85% accuracy. Utilized TorchServe for production deployment.
- Created dashboards to visualize the real-time security state of the system using PowerBI.

**Applied Skillsets:** Appian SAIL, Process Modeler, MySQL, Python, Pandas, Scikit-learn
**Accolades:** Lauded for carrying out multiple production deployments successfully.

**DEXTROWARE DEVICES PVT LTD** – **Assistive Tech for Differently-abled** - India                                         **Jul 2020 – Dec 2020**
**Business/Product Analyst (Part-Time)**
- Identified the most benefitable end-user for the product using Python data analysis and segmentation methods.
- Conducted market analysis and identified target market segments, leading to improved customer reach by up to 15%.
- Presented the derived insights to investors, resulting in an investment of 20% of the company's total market value.

**Applied Skillsets:** Python, Pandas, Matplotlib, Seaborn, Numpy
**Accolades**: Best Startup in Assistive Technology - Massachusetts Institute of Tech, Dr Kyle Kaene.

## PROJECTS

**Social Analytics: Movie Script Analysis** (GitHub)
- Improved sentiment analysis accuracy by 15% using BERT model compared to the Lexicon model in Python.
- Performed Agglomerative Community Detection Algorithm to identify character relationships.
- Identified key characters and their relationships using centrality measures, resulting in a 50% (approx.) overall story coherence.
- Uncovered important social dynamics within the movie using ENA techniques.

**Product Analytics and Performance Optimization:** (GitHub)
- Leveraged Python to analyze product sales data and created dashboards in Tableau to extract key insights for product improvement.
- Employed VADER sentiment analysis on the review dataset to evaluate customer sentiment.
- Compared results with sales performance, providing valuable insights to optimize product positioning and marketing strategies.

**Loan Default Prediction in Nigeria:** (GitHub)
- Developed a machine learning model using loan data to predict loan defaults for a Nigerian financial institution.
- Implemented & compared ML algorithms such as XGBoost, Bootstrap Forest, and Boosted Tree.
- Achieved 40% higher accuracy with XGBoost compared to other algorithms.
- Enabled the institution to make more informed lending decisions and reduce financial risks.

**Data Science Solutions for Business: Customer Transaction Data:** (GitHub)
- Performed customer segmentation using RFM, Demographic Segmentation, and purchase behavior.
- K-means Clustering for Product Segmentation. Obtained cluster insights using Quadrant Analytics.
- Utilized Association Mining algorithms (MBA & Apriori) to identify frequent buying itemsets in transactions.
- Designed a Recommender System (Content-Based Filtering) based on customer demography data to improve sales.

**Data Sensing from Space (Sentinal-2 L2A Dataset) :** (GitHub)
- Performed data cleaning and PCA for dimensionality reduction on various spectrum wavelength satellite data.
- Normalized and standardized highly skewed data issues before clustering using K-means and Gaussian Mixture.
- Recognized and visually presented the changes in Singapore in a few years from the clustered results.

## INTERNSHIP

**WNS VURAM** – India                                                                                     **Jan 2019 – Apr 2019**
**Appian Developer Intern**
**Case Management System**
- Developed a real-time complaint registration application for use in banks using Appian, ensuring efficient complaint handling.
- Incorporated the complete business flow, including Diligence and Due Diligence processes, to streamline complaint approvals.
- Designed a database table schema tailored to real-time requirements, ensuring data integrity and responsiveness.
- Created dynamic visualized dashboards to present quarterly complaint data, facilitating data-driven decision-making.
- Implemented dynamic SAIL object configurations for multiple forms, significantly improving operational efficiency.
**Applied Skillsets:** Appian SAIL, Process Modeler, Records, Reports, CDTs, MySQL
**Accolades**: Recognized and awarded as the best Proof of Concept (POC) application within the batch, reflecting outstanding project performance.

**INDRA GANDHI CENTRE FOR ATOMIC RESEARCH** – India                                 **Nov 2017 – Dec 2017**
**Software Developer Intern**
**User Management System**
- Developed User Management Web Application for the IGCAR employee directory.
- Optimized response time, enhanced offline access, and improved UI/UX.
**Applied Skillsets:** HTML, PHP, CSS, LDAP, CentOS 7