

## PROFILE

- 7 years of experience in business analysis and 3 years of experience leveraging various **Machine Learning** and **GIS** modeling approaches to solve challenging business problems.
  - Adept at gathering, processing, exploring, visualizing data, and building ML models using **Python** libraries such as **Sklearn**, **Pandas**, **NumPy**, **Matplotlib**, **Dask**, **Arcgis** and **Pytorch**.
  - Successfully deployed applications performing data download, validation, pre-processing, database operations, feature engineering, modeling using **AWS S3** buckets, **Sqlite3**, **Pickle**, **HTML**, **Flask**, and **Heroku**.
  - Proven expertise in understanding the business needs, gathering requirements, and managing projects with cross-functional teams to deliver quality products using **Agile** methodology.
  - Created and lead a practicum project for 25+ M.S. Analytics students at Georgia Tech for Fall'21.
  - Basic understanding of **deep learning** techniques.
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## EDUCATION

- **M.S. Analytics**, Georgia Institute of Technology, GA **Jan 18-Dec 19**  
*Coursework* – Machine Learning, Analytics Modelling, Python for Data Analysis, Data and Visual Analytics, Regression Analysis, Database Systems, Data Analysis for Continuous Improvement, Deterministic Optimization
  - **M.S. Engineering Management**, University of Texas at Arlington, TX **Aug 08-May 10**
  - **B.S. Mechanical Engineering**, U.P. Technical University, India **Sept 02-May 07**
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## KEY PROJECTS

- **Thyroid Classification**  
**Goal:** build an **end-to-end** application to predict the type of Hypothyroidism using a multi-class **classification** methodology
    - Created data validation pipeline by downloading, validating the data, and inserting into a database.
    - Explored, pre-processed, feature engineered and then **clustered** the data for modeling.
    - Performed hyperparameter tuning and built **KNN**, **SVM**, **Random Forest**, and **XGBoost** models for each cluster.
    - Deployed the application for model training and prediction on Heroku.
  - **Covid-19 Trends in the U.S. Nursing Homes**  
**Goal:** showcase the various **time series** capabilities of the ArcGIS ecosystem using open-source data
    - Explored the data to understand the distribution of average weekly resident deaths per 1000 residents.
    - Applied spatial time-series clustering, **exponential smoothing**, Forest based, and **ARIMA** models to explore and forecast Covid-19 trends for each county.
  - **Explore Healthcare Provider Shortage in the U.S.**  
**Goal:** show how geographical modeling approaches can enhance an analysis by providing a different perspective
    - Explored the data to identify shortage areas for physicians, mental health, and OB-GYN healthcare providers in the U.S.
    - Applied **spatial ML** techniques to identify sociodemographic and economic factors that influence access to providers.
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## PROFESSIONAL EXPERIENCE

- Esri, Redlands, CA** **July 17-Present**
- Data Science Product Engineer**, ArcGIS API for Python May 19–Present
- Author spatial ML projects to showcase the capabilities of various modules such as **GeoEnrichment**, and **Spatially Enabled DataFrame**.
  - Lead discussions and participate in the design and development of ArcGIS Notebooks by working closely with cross-functional teams.
  - Create, maintain, and update **unit tests** and test assets to maintain high QA standards.
  - Reduced manual effort by creating automation to run various data science notebooks for seamless testing as part of API certification and continuous deployment.
  - Evangelized spatial data science by creating a practicum project for the M.S. Analytics students at Georgia Tech.
    - Designed a bootcamp to demonstrate the application of GIS, in collaboration with Product and Education teams.
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## Business Analyst, eCommerce

July 17–April 19

- *Collaborated with business partners and distributors on implementing a truly global digital ecommerce solution that enhances our customer's digital buying journey, is cost-effective, and ensures compliance.*
- Gathered, and defined requirements for improvements to Esri's eCommerce store and ArcGIS Marketplace; Created mock-ups for user notification of products.
- Lead the effort to implement Adobe Analytics to the store in collaboration with the Analytics team; Defined metrics to understand the shopping behavior and provide insights on store sales to the management.
- Performed market research to identify solutions that can process payments and handle taxes globally on the store.

## Esurance, Rocklin, CA

April 13–July 17

### Sr. Business Analyst, Product Implementation

Sept 14–July 17

### Business Analyst, Product Implementation

April 13–Aug 14

- *Supported stakeholders to build and enhance insurance quoting and policy management programs for Auto Product and Compliance projects. Drove new and complex projects from business concept to IT delivery.*
- Created business requirements documents (BRD), functional specifications and process flows defining detailed rules for new business initiatives and system enhancement projects.
- Managed and executed entire projects from start to finish; Lead Joint Application Development (JAD) sessions with cross-functional teams to develop, confirm business requirements and supporting rules.
- Acted as a subject matter expert to assist technical teams throughout development and testing phases for high priority and complex projects.

## Caterpillar Inc., Peoria, IL

May 11–April 13

### Business Analyst, Global Emissions Regulatory Compliance

- *Lead a six-sigma effort on improving the reliability and accuracy of Engine Emissions data on Caterpillar's Technical Marketing Information website. This data was used by process partners, dealers and customers worldwide for import / export of engines and sale of used equipment.*
- Identified gaps in the existing process by performing SWOT, gap and risk analysis.
- Reverse engineered the existing process by working with cross-functional teams to create 'As-Is' process flows, proposed solutions and made recommendations for 'To-Be' process.
- Achieved improved data accuracy, high customer satisfaction and reduced operating costs.

## Buy Stones Online, Kissimmee, FL

May 10–April 11

### Operations Business Analyst (Volunteer Position)

- *Performed detailed analysis to better understand customer needs, developed and evaluated business requirements; examined existing data and identified areas of improvement.*
- Tracked and Analysed business trends, prepared reports based on sales history and projections.
- Managed excess and obsolete inventories, made decisions to scrap or hold for future use.

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## CERTIFICATIONS

- **Deep Learning Specialization**, deeplearning.ai May 20–Aug 20
- **Data Analytics / Big Data Certificate**, The University of Texas at Austin July 16–May 17
- **SAS Certified Professional**, SAS May 15–Oct 15

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## TECHNICAL SKILLS

- **Data Science** - Python, Flask, SQL, R, HTML, CSS, GitHub, D3.js
  - **Reporting** – Tableau, Adobe Analytics, SAS
  - **Project Management** - JIRA, Workfront, Target Process, MS Visio, Lucidchart
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