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Lucy Lu

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Education

Boston University *Master of Science in Software Development.*	2024 - Present
University of Massachusetts at Amherst *Bachelor of Science in Mathematics and Statistics*	2016 - 2020

Work Experience

Analyst, Liberty Mutual Insurance   Jan 2023 – Present

- **Improved telematics program completion rates and increased the retention rate of safe drivers** by building **linear regression** and **tree model** to analyze past user behavior, identify common characteristics and assess program completion rates
- Developed interactive fraud **model monitoring dashboards, enabling real-time monitoring** and achieving an **11% reduction in fraud-related financial losses** by promptly identifying and addressing model anomalies through proactive monitoring measures
- Implemented **data quality checks and data validation** techniques using the fuzzy match and the great expectation packages in Python to ensure data reliability
- Leveraged **Python, SAS, and Snowflake** to build and execute automated, dynamic queries, resulting in a remarkable **40% reduction in data processing time** to increase data accuracy and reduce manual effort
- Identified and resolved claims **data quality issues** by conducting thorough **root cause analysis** and implementing appropriate **corrective actions**, ensuring transparency and alignment between data system to mitigate any potential adverse impacts
- Utilized SAS and Snowflake to effectively **manipulate and analyze customer segmentation media data**, to provide actionable insights to improve targeting strategies

IT Consultant, Capgemini   Aug 2020 – Aug 2021

- **Collaborated with cross-functional product team** and **stakeholders** to define **KPIs**, **business requirements** and drive product features into production through **Agile scrum** methodology to enhance project efficiency, resulting in a 15% reduction in development cycles and ensuring timely product delivery
- Improved and **derived project efficiency by 5%** through restructuring process documents and tracking, evaluating, and communicating project status including risks, actions items

Research Experience

Research Intern, Department of the Interior   Sep 2021 – Dec 2021

- Cleaned, imputed, and analyzed over 10k+ data points with **R** and **Excel**, to provide **data insights and a plan of action** to increase federal programs' language accessibility for minority groups that aims to result in a measurable **20% increase in program engagement** within the targeted demographic in local group

Research Assistant, University of Massachusetts, Amherst   Jan 2019 – May 2019

- Analyzed large public datasets with **over 1M+ data points** with **R** and **Excel** to provide insights to the Syrian War Death Population research project and contributed to the **final publication**
- Applied **statistical models** such as linear regression, logistic regression, and cluster models, and created **data visualizations** to explore and identify true population data points

Skills

- Programming Languages: Python, SQL, Java, Scala, R
- Hadoop, Spark, Hive, Informatica, Talend, SQL Server, MySQL, Oracle, MongoDB, Azure, Google Cloud, Snowflake, Redshift, Tableau, Power BI