Curriculum Vitae

Sheeraja Rajakrishnan

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Education

2022 – Present ◇ **Ph.D., Rochester Institute of Technology** Computing and Information Sciences

2017 – 2019 ◇ **M.S., Syracuse University** Computer Science

2010 – 2014 ◇ **B.E., SSN College of Engineering** Computer Science

Employment History

2022 – Present ◇ **PhD Student** Rochester Institute of Technology
- Researching on uncertainty-aware reinforcement learning models
- Passed the Research Potential Assessment in May 2022

2020 – 2022 ◇ **Data Analyst/Data Scientist** Kaiser Permanente
- Analyzed video visits data and developed multiple Tableau reports to communicate the insights with the stakeholders
- Developed an interactive Tableau dashboard and custom Google Analytics reports and dashboards for analyzing COVID-19 web traffic
- Worked on a PoC algorithm for face recognition, using Python and the sklearn package
- Created a dynamic Tableau dashboard to track all the published reports on the Tableau server, using the PostgreSQL Tableau Server Repository
- Created a Tableau dashboard to forecast pageviews, using SARIMAX and the TabPy server
- Conducted data science sessions on Logistic Regression, K-Means and K-Modes Clustering, Dimensionality Reduction, Decision Trees and TabPy
- Utilized NLP models to categorize patient emails (using Python and spaCy)

2018 – 2019 ◇ **Data Analyst** Syracuse University
- Worked on the analysis and reporting of faculty research expenditures to assess the overall spending incurred by the department
- Automated all the data entry and analyses processes, to populate the data required for the analysis and reporting, using Python
- Worked on converting a manual form to an online form using JavaScript, PHP and MySQL database

2017 – 2019 ◇ **Graduate Research Assistant** Syracuse University
- Worked on analysis of a social network using K-core decomposition, in Python, to segregate nodes into different clusters and to assess the impact of the removal of one node on other nodes

Employment History (continued)

2015 – 2017 ◇ **Business Analyst** Tata Consultancy Services (TCS)
- Worked, as a Lead, for a few projects, in the Visual Analytics team to report the performance of the business, using Tableau
- Performed customer, correlation and trend analyses on the available data using R, Hive and Impala
  - Customer segmentation using K-means clustering in R, based on several customer attributes like age, gender, spend, etc.
  - Correlation analysis to identify the dependency of different attributes to customer spending patterns
  - Trend analysis of customer spending patterns by separating the spend data into seasonal, trend and random components
- Created a few custom views, such as chord chart, arc chart and hexagonal map, in Tableau
- Developed an algorithm, using Impala, to validate transactions that were flagged as fraud transactions
- Worked, as a Lead and developer, on the full stack development of an agile project to create a web page and monitor the traffic
  - Created the web page, back-end databases and reports using Impala and Tableau
- Provided training on R, Tableau and cloud platforms to colleagues

2014 – 2015 ◇ **Trainee Decision Scientist** Mu Sigma Business Solutions Pvt. Ltd.
- Worked for the in-house Products Team to build a Naive Bayes Classifier Package, using R, to perform classification of textual and non-textual data
- Worked with Business Intelligence team, of the client, to perform data analyses and generate analytic reports using SAP Business Objects and Tableau

Research Experience

2022 – Present ◇ Uncertainty-aware reinforcement learning models

2019 ◇ Identification of Groups/Organizations Created Through WhatsApp Communication

◇ Robustness of centrality measures to missing or incorrect graph data

2018 ◇ Collection and analysis of gait data to identify a person

2014 ◇ Image segmentation of heart scans to detect stenosis

Invited Talks & Guest Lectures

February 2025 ◇ **Uncertainty in Machine Learning** – Guest lecture for CSCI736: Neural Networks & Machine Learning, Golisano College of Computing & Information Sciences, Rochester Institute of Technology

July 2024 ◇ **An Introduction to Machine Learning** – Invited talk at GenCyber Summer Camp for 8th-12th grade students, Rochester Institute of Technology

October 2023 ◇ **An Introduction to Machine Learning** – Guest lecture for SWEN101: Software Engineering Freshman Seminar, Golisano College of Computing & Information Sciences, Rochester Institute of Technology

Skills

Languages	◇	Python (Jax, PyTorch, TensorFlow), Julia, R, C, C++
Front End	◇	HTML, CSS, PHP
Software	◇	Tableau, Jupyter Notebook, RStudio, Eclipse, SAP BO, Google Analytics
Databases	◇	MySQL, Hive, Impala
Version Control	◇	Git
Familiar with	◇	SAS, Haskell, Weka, Stata, MATLAB
Misc.	◇	Academic research, teaching/training, LaTeX typesetting