Ritwika "Raven" Mukherjee

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SKILLS

Languages: Python, Bash (Unix shell), R, MATLAB
Frameworks: Matplotlib, Scikit-Learn, Pandas, Scipy, Numpy, Tensorflow, PyTorch
Tools: Git, Cloud services (AWS, GCP, Azure), Autodesk, Arduino, Docker, Plotly
Domain expertise: life sciences healthcare, machine learning and AI with experience in time-series analyses, customer-facing engagements, problem-solving, cross-functional communication

EXPERIENCE

Lead Solutions Engineer in Life Sciences and HealthCare| Tamr, Inc. Cambridge, MA |Present

- Drove successful implementations of customized cloud-native deployment of ML-driven software applications for customers securing $1.2M of new ARR with creative problem-solving of technical issues and relationship-building across technical and non-technical stakeholders
- Managed other team-members' projects and led successful deliverables with new ARR of $150K
- Built deployment frameworks for customers with collaborations with Product and Engineering teams to ensure accuracy in reporting and identify areas for growth of product for success
- Wrote up to 10 software RFI documentations summarizing technical topics for clients; developed content accessible for all audiences; and built automatized scripts for customer pipelines

Data Scientist II| Data Solutions, Global R&D, FMCNA Waltham, MA |Aug 2020 – Oct 2021

- Developed scalable predictive models with acoustic, longitudinal, machine and medical data to make smarter dialyzers that improve care of over 200K patients on dialysis
- Spearheaded a 20 member cross-department project to build an acoustic sensor that classified machine sounds to prevent failures in components rolled out in patient homes as a medical product
- Analyzed patient data and complaints to build predictive pipelines and dashboards utilized by nurses
- Trained and validated artificial neural networks incl. LSTMs, CNNs, autoencoders
- Leveraged Azure DevOps pipelines to build Docker images, for CI/CD pipelines incl. unit testing

Tufts University Postdoc researcher in Biology **Medford, MA | May 2020 – Aug 2020**

- Developed a model to identify different surfaces based on movements of 3D-printed terrestrial soft robots in collaboration with University of Alabama
- Independently participated in a project to determine a COVID-19 impact index for US residents through surveys and designing success metrics for evaluations

Insight Data Science Fellow **Boston, MA | Jan 2020 – March 2020**

- Built and deployed a web app "Stay on Track!" that predicts the duration of service interruption due to track changes, repairs, or maintenance of the commuter rails real-time in Boston using Python
- Created an ML gradient boosted predictive model for service interruptions in commuter rails from 30K past alerts records scraped using APIs, and merged with MBTA reliability, ridership, and weather

Tufts University Graduate research assistant in Biology **Medford, MA | Sep 2014 – May 2020**

- Studied neuromechanics of insects – measured and processed EMGs to temporally combine them with simultaneous high-speed videography of 3D movement (1000 frames each of 200 trials) in MATLAB to inform robotics of deformable structures gaining experience in signal processing and advanced stats
- Fabricated soft material, designed actuation, and tracked movement of the first tendon-driven open-cell foam robot for potential applications in medicine and low-force grasping
- Published 10 journal articles and presented my research at 4 international conferences

EDUCATION

PhD in Neuromechanics and Soft Material Robotics, Tufts University, Boston **2020**
BS-MS in Biology, minor in Physics, Indian Institute of Science Education & Research, Trivandrum **2014**