

Melnita Dabre

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EDUCATION

UMASS, AMHERST

MS IN COMPUTER SCIENCE

Expected May 2022 | Amherst, MA
Cum. GPA: 4.0 / 4.0

MUMBAI UNIVERSITY

BE IN INFORMATION TECHNOLOGY

May 2017 | Mumbai, India
Cum. GPA: 3.6 / 4.0

COURSEWORK

GRADUATE

Advanced Machine Learning
Advanced Natural Language Processing
(Teaching Asst)
Intelligent Visual Computing
Reinforcement Learning
Software Engineering Practices

UNDERGRADUATE

Statistics and Calculus
Artificial Intelligence
Data Structures and Algorithm Analysis
Big Data Analytics

SKILLS

PROGRAMMING

Languages:
Python • Java • JavaScript • MySQL
Frameworks:
PyTorch • Django • Jinja2

TOOLS

wandb • slurm • bash

CERTIFICATIONS

Automation Anywhere

AWARDS

Best User Interface
ZS Quest Hackathon 2017
Excellence in project setup and OPS
Emerging Markets Sales Incentive
Program (EMSIP) 2018
Appreciation for Valuable Contribution
ZS Associates 2018
ABU Robocon India 18th/110
Participated as Team captain 2017

EXPERIENCE

EPSILON DATA MANAGEMENT | ML ENGINEERING INTERN

June 2021 – Present | Wakefield, MA

- Augmented machine learning models to enhance core Epsilon business use cases such as Most Popular Product, Abandoned Cart, Value Attrition Potential among others.
- Significantly reduced model deployment complexity by templating common aspects of model driver files, integrated with a CI/CD pipeline to ensure end-to-end automated model deployment and runs.

ANMOL COMPUTECH | SOFTWARE ENGINEER

Sep 2019 – Jul 2020 | Mumbai, India

- Developed an in-house Business Process Management tool capable of modeling dynamic business rules, implemented as a rich interactive web application using JSP and jQuery.
- Implemented various Continuous Improvement initiatives such as automating client on-boarding workflows like KYC using Python scripts deployed on AWS.

ZS ASSOCIATES | BUSINESS ASSOCIATE

Jul 2017 – Aug 2019 | Pune, India

- Developed high-level Python API to automate a proprietary SQL based ETL Tool.
- Structured sales force bonus payout plans for over 30 markets spanning across APAC and EEMEA.
- Performed information-driven diagnostic examination to help clients assess incentive compensation and promote sales force effectiveness.
- On-boarded key client markets in the project with annual revenue potential of over \$ 100,000.
- Implemented forecasting models such as Autoregressive Integrated Moving Average, ADDWINTERS, etc. to predict sales data.

PROJECTS

PROTOQA RERANKER | NLP

Jan 2021 – Present | Information Extraction and Synthesis Lab, UMass

Implemented various models (based on T5 and Electra) attempting various regression and ranking loss techniques to improve ranking of results for Commonsense answers. Explored various methods for injecting more commonsense knowledge into language models via knowledge bases such as ConceptNet.

SELF-SUPERVISED LEARNING ON 3D POINT CLOUDS | 3D VISION

Jan 2021 – May 2021 | Graduate Project

Proposed a new self-supervised algorithm which applies discriminators on point clouds segmented as approximate convex polyhedra. The model is taught to discriminate between real and fake objects. (report)

SENTIMENTAL VISUAL QUESTION ANSWERING | NLP

Sept 2020 – Dec 2020 | Graduate Project

Designed a method to combine LSTM and feature-rich encodings from state-of-the-art models like LXMERT that outperformed vanilla LSTM and a few other multitask models for Sentimental visual question answering. Created a dataset with affective answers for open-ended questions using a preexisting captioning dataset.