Nidhi Ranjan

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EDUCATION

New York University, Courant Institute of Mathematical Science   **Jan 2021 - Dec 2022**
Master of Science in Computer Science | Attending vGHC'22   CGPA: 3.7/4

National Institute of Technology Goa   **Jul 2014 - Jul 2018**
Graduated with a Bachelor of Technology in Computer Science and Engineering   CGPA: 7.58/10

EXPERIENCE

Meta (Formerly Facebook) | Software Engineer Intern   **May 2022 — Aug 2022**
Messaging Platforms (Instagram, Messenger) | California, USA
- Programmed remediation in **Django**, **Hack** to improve interactions with unknown contacts for IG in-network messaging and cross-network messaging (IG to MSGR) to improve positive user experience by 12% and reduce negative action rate by 34%.
- Upgraded permission policies to cover entry points from all surfaces incase the sender tried to bypass existing remediation.
- Improved Message Request foldering and ranking models by adding new features to the **ML models** for UK (increase of 3.4%) and ROW (increase of 5.7%) users. Performed **privacy** aware private experimentation for finding new features for users in EU.

New York University | Part-time API Developer Intern   **May 2021 — May 2022**
Enterprise Data Management | New York, USA
- Led migration of database and queries from **MySQL** to **Snowflake**. Also setup **CI/CD** pipeline in Jenkins for the application.
- Engineered encryption of user sensitive data using **Cryptography**, **Flask** and **Jenkins**.
- Revamped Intake and Approval form for requesting data with added control group level **authorization** in Flask and successfully onboarded 1200 students.

Barclays | Software Development Engineer   **Jul 2018 — Jan 2021**
Barclays UK Digital | Pune, India
- Engineered migration of Business Instant Lending Application in Business Banking from **AngularJS** to **Angular 9**.
- Collaborated in a team of 5 to swiftly deliver Bounce Back Loan scheme during COVID 19 for emergency release as part of Barclays UK COVID relief in **Spring**.
- Developed solutions to enable merchants as a business segment for Online banking by developing authorisation workflows by creating **Restful APIs** in **Spring boot**. Project was awarded **'Data Driven Product of 2019'** in Barclays UK. MAU increased by 13%.
- Spearheaded development in **Spring** for integrating Multi Business users onto Business Banking platform. New registrations increased by 17%.

PROJECTS

Performance Prediction of Multi-threaded Applications | New York University   **Apr 2022 — May 2022**
- Analyzed regression models to predict performance of multi-threaded applications using PARSEC and SPLASH Dataset in **PyTorch**.
- Experimented with various features selection methods wherein Random Forest Feature Importance added with **Gradient boosting model** performed best with a R2 score of 0.82.

Summarization Techniques for Scientific Papers | New York University   **Oct 2021 — Jan 2021**
- Processed research papers from ScienceDirect by removing stopwords using **NLTK**, performed tokenization, generated **TF-IDF**.
- Used extraction and abstraction methods to train models- **TextRank**, pointer-generator models and fine-tuned **BERT & XLNet** models to achieve highest Rouge-1 score of 0.510.

Causal Inference - Predicting time to death for Sepsis Patients | New York University   **Mar 2021 — May 2021**
- Estimated effects of treatment on ICU patients with Sepsis Infection on MIMIC- IV data set with a SOFA score greater than 2, trained a **cox proportional hazard model** achieving a concordance score of 0.76.
- Calibrated individual and average treatment effect in **PyTorch** from possible surrogate treatments for given confounders as well as current state of survival of patients leveraging LODE algorithm.

TECHNICAL SKILLS

Languages	Java, C/C++, Python, PHP, Hack, JavaScript, HTML, CSS
Frameworks / Libraries	Angular9, Spring-boot, Spring, Flask, Django, Pytorch, TensorFlow, Scrapy, Git, Jenkins, Scikit-Learn
Database	MySQL, MongoDB, Oracle SQL, PostgreSQL
Relevant Course Work	Algorithms, Operating Systems, DB Systems, Multicore, Big Data, Machine Learning, CV, NLP

LEADERSHIP & AWARDS

Teaching Assistant for Calculus and Mathematics for Economics at NYU Courant (Tutored around **150 students**).   **2022**
Onboarding Buddy - Mentored new recruits in Business Banking, **Coordinator**- Ways of Working Committee at Barclays.   **2020**
Vice President of Computer Science and Engineering Association at National Institute of Technology Goa.   **2018**