Nidhi Ranjan

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EDUCATION

New York University, Courant Institute of Mathematical Science   **Dec 2022**
Master of Science in Computer Science   CGPA: 3.5/4
Relevant Coursework: Machine Learning, Operating Systems, Fundamental Algorithms

National Institute of Technology Goa   **July 2018**
Graduated with a Bachelor of Technology in Computer Science and Engineering   CGPA: 7.58/10
Relevant Coursework: ML, Cryptography, Advanced Algorithms, Data Mining, Optimisation Techniques in Computing, Databases

SOFTWARE SKILLS

Languages	Python, Java, C/C++, JavaScript
Frameworks	Pytorch, TensorFlow, Pandas, Keras, Scikit-learn, Angular 9, Flask, Spring-boot, Git
Database	MySQL, MongoDB, Oracle SQL, PostgreSQL
MOOC	Intel Edge AI Nanodegree, Neural Networks and Deep Learning

EXPERIENCE

Barclays | Software Development Engineer   **Jul 2018 — Jan 2021**
- 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.
- Developed solutions to enable merchants as a business segment for Online banking by developing back-end and authorisation workflows for it in Spring boot. User base of online business banking customers increased by 14%.
- Spearheaded development of a tactical solution for integrating multi business users into online banking platform and implemented new user experience for those customers in Smart Business Dashboard increasing new registrations by 23%.
- Decreased waiting time and dependency on support team by developing a dashboard for development and maintenance of Restful API's, with auto repair functionality on a predefined set of rules.
- Created restful API's to migrate business instant lending mainframe calls to internal API's to be used across all of Barclays UK. Fault rate reduced by 14%.

Innoplexus Consulting Services | Data Science Intern   **May 2016 — Jul 2016**
- Formalised a centralized platform for crawling, extracting and unifying over 5TB of pharmaceutical data using Flask.
- Automated the ETL(Extraction,Transformation and Load) processes for pharmaceutical products Oilbird and Touchpoint utilising Scrapy and Selenium, improving efficiency by 38%.
- Implemented an universal crawler to crawl pharmaceutical data from various sources and accordingly segment it into categories with the help of Scrapy and Selenium, reducing manual efforts by 75%.

PROJECTS

Predicting time to death for Sepsis Patients using Causal Inference | New York University   **Mar 2021 — May 2021**
- Estimated effect of treatment on ICU patients with Sepsis 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.
- Computed individual and average treatment effect from surrogate treatments for given confounders as well as current state of survival of patients leveraging LODE algorithm.

Video Surveillance for COVID 19 Spread | Personal   **Sep 2020 — Dec 2020**
- Engineered a video surveillance application for crowd detection utilising one shot learning for identifying crowded hot spots during Covid-19 in PyTorch achieving an accuracy of 87%.
- Formulated methods for mask detection in crowds, evaluated crowd density and segregated regions into red/yellow/green districts for Indian demographics.

Classification & Annotation in Medical Image Analysis | IIT Mandi, NIT Goa   **Dec 2017 — May 2018**
- Created a CNN based hierarchical classifier to help classify H&E stained breast histology microscopy images in four classes: normal, benign, in-situ carcinoma and invasive carcinoma in Tensorflow. Achieved test set accuracy of 89%.

LEADERSHIP & AWARDS

Recitation Leader for undergraduate course, Mathematics for Economics at NYU Courant.	**2021**
Awarded Barclays Hall of Fame for excellence and stewardship during COVID-19 Emergency deliveries.	**2020**
Onboarding Buddy - Mentored new recruits in Business Banking, Coordinator of Ways of Working Committee at Barclays.	**2020**
Vice President of Computer Science and Engineering Association at National Institute of Technology Goa.	**2018**