Aniket Pradhan

SOFTWARE DEVELOPMENT ENGINEER

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Personal Profile

A nerd working at Adobe, as a Software Development Engineer. Currently working on the Streaming workflows in the Adobe Experience Platform, to segment billions of different "profiles" within minutes. Zealous about Research and Development, with a few publications at major conferences around Optical Network Communication. Fascinated by Machine Learning and Data Engineering roles.

Work Experience

Adobe *Noida, India*
Computer Scientist - 1 *July 2024 - Present*

- Collaborated with teams across geographies in the development of Apache Spark and Delta-based big-data architectures, ensuring seamless data updates and performance optimization.
- Implemented a structured approach for internal micro-services, enhancing data accessibility and robustness within Adobe Experience Platform. This initiative supports critical functionalities including Segmentation, Profile Export, and Adobe Journey Optimizer.
- **Technical Skills:** Scala, Apache Spark, DeltaLake, Databricks

Adobe *Noida, India*
Member of Technical Staff - 2 *Feb 2023 - June 2024*

- Engaged in cross-functional collaboration to ensure the effective operation and enhancement of the segmentation process, thereby preserving the idempotence of multiple services.
- Enhanced the operational excellence of our owned services, consequently bolstering service stability and diminishing points of failure.
- Facilitated interaction with various teams to secure the timely delivery of novel and refined features, thereby augmenting the criticality of the service.
- **Technical Skills:** Scala, Apache Kafka, Apache Spark, Microsoft Azure, gRPC

Adobe *Noida, India*
Member of Technical Staff *Jul 2021 - Feb 2023*

- At Adobe, I am a part of the Unified Profile Services team, within the Adobe Experience Platform, where I work on the Streaming Segmentation and Edge Segmentation workflows.
- The work revolves around providing real-time segmentation for billions of user profiles around the world with minimal latency as low as in milliseconds.
- Dedicated efforts towards cost optimization for a sub-service, which resulted in a significant annual cost reduction exceeding $ 1 million in total.
- **Technical Skills:** Scala, Apache Kafka, Apache Spark, Microsoft Azure, gRPC

Adobe *Noida, India*
Product Intern *May 2020 - July 2020*

- As a Product Intern, I worked on a closed domain question and answering (QnA) framework, using the state-of-the-art methods of natural language processing.
- The QnA framework was designed to be flexible and modular, suitable for Adobe Experience Platform's Documentation.
- **Technical Skills:** Python with Tensorflow and PyTorch XLA (for Google TPU), Git.

RealVol *New Delhi, India*
UI Designer Intern *May 2018 – July 2018*

- At RealVol I worked on the design and the UI for the product, RealVol
- **Technical Skills:** Unity VR, C#, Git.

OutWorx Solutions Pvt. Ltd.

Android Developer Intern

- Created and implemented simple animations for Android.
- Implemented scalable widgets for Android Applications.
- **Technical Skills:** Android Studio, Java, Kotlin

Education

Indraprastha Institute of Information Technology - Delhi *Delhi, India*
B. Tech in Electronics and Communications Engineering *Aug 2017 - May 2021*

- **Courses:** Machine Learning, Deep Learning, Speech Recognition and Understanding, Game Design and Development, Software Development using Open Source, Digital Audio, Digital Image Recognition

Father Agnel School *Delhi, India*
High School *2015 - 2017*

- Passed with Distinction
- Specialised in Physics, Chemistry, and Maths with Computer Science

University Projects

Efficient Filling of C+L Bands for an Optical Network *Delhi, India*
Indraprastha Insitute of Information Technology - Delhi and British Telecom *May 2019 - May 2020*

- Studied the non-linear effects faced by optical signals in a multi-hop path.
- Analyzed link margins in an optical network and studied the methods to reduce them in a backbone optical network.
- Compared the benefits offered by a multi-fiber optical network and a multi-band optical network.
- **Technical Skills:** Python, LaTeX.

Deep Neural Network Based Predictions of Protein Interactions using Primary Sequences *Delhi, India*
Indraprastha Institute of Information Technology - Delhi *Oct. 2018 - Feb. 2019*

- Created a tool in Python to automate data collection and organize the data in a pretty SQL table.
- Worked on and implemented Deep Structured Semantic Network (DSSM) in Python using Tensorflow
- Worked on an approach to simplify querying of similarity based protein sequences, using supervised methods
- **Technical Skills:** Python with Tensorflow, SQL.

IoT Smart Lock *Delhi, India*
Indraprastha Institute of Information Technology - Delhi *Dec. 2017 - Apr. 2018*

- Automated lock which can be controlled securely via the Internet.
- Provides a key less access to the lock with a robust and modular tech stack.
- Secure communications between the clients and the host using TLS 1.2
- **Technical Skills:** C, Python, Arduino.

Publications

- T. Ahmed, S. Rahman, A. Pradhan et al, "C to C+L Bands Upgrade with Resource Re-provisioning in Optical Backbone Networks", 2021 Optical Fiber Communications Conference and Exhibition (OFC), 2021, pp. 1-3.

- R K. Jana, A. Mitra, A. Pradhan et al, "When Multiband Elastic Optical Networks Becomes More Economical Than Multifiber Elastic Optical Networks?", European Conference on Optical Communication 2020, DOI: 10.1109/ECOC48923.2020.9333276

- A. Mitra, D. Semrau, N. Gahlawat, A. Pradhan et al, "Capacity Benefits of Operation Over C+L Band Elastic Optical Network in the Indian Network Scenario", IEEE ANTS 2019, DOI: 10.1109/ANTS47819.2019.9117992

Posters

- A. Sinha, A. Pradhan, Q. Fang et al, "Comp-NeuroFedora, a Free/Open Source operating system for computational neuroscience: download, install, research", Org. for Computational Neurosciences 2020

Skills

Programming	Java, Scala, Python (Tensorflow, PyTorch, NumPy, Pandas etc.), C/C++, HTML/CSS, JavaScript, SQL.
Miscellaneous	Linux, Shell (Bash/Zsh), Apache Kafka, Apache Spark, Apache Flink, LaTeX, Git.
Soft Skills	Ownership, Time Management, Teamwork, Problem-solving, Documentation, Engaging Presentation, Report writing, Product Design, Logical Thinking

Positions of Responsibilty

2020	**Byld Admin,** Indraprastha Institute of Information Technology - Delhi
2019	**Web Admin,** Summer Camp @ Indraprastha Institute of Information Technology - Delhi
2019	**Volunteer,** Summer Camp @ Indraprastha Institute of Information Technology - Delhi
2018	**Web Admin,** Research Showcase @ Indraprastha Institute of Information Technology - Delhi
2018	**Event Head,** Student Breakthrough, Research Showcase @ Indraprastha Institute of Information Technology - Delhi
2018	**Event Head,** RoboWars, ESYA @ Indraprastha Institute of Information Technology - Delhi

Languages

English	Professional proficiency
Hindi	Native proficiency
French	Bilingual proficiency