

# Piush Das

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## EDUCATION

### Indian Institute of Technology Madras

Jan. 2023 – Jan. 2027

*Bachelor of Science in Data Science and Application Development*

*CGPA: 9.1*

- **Relevant Coursework:** Mathematics for Data Science, Statistics for Data Science, Python Data Structures and Algorithms, Database Management Systems, Machine Learning, Deep Learning, Artificial Intelligence, Linux, Software Engineering, Application Development

## EXPERIENCE

### Junior Developer Intern

Jan. 2026 – Present

*NPTEL – National Programme on Technology Enhanced Learning*

*Chennai, Tamil Nadu*

- Migrate large-scale NPTEL databases from MySQL to PostgreSQL with schema redesign.
- Implement Django-based backend routes for secure login and role-based access control.
- Create Python automation scripts for technical operations and data integrity checks.
- Execute ETL data pipelines using Apache Beam on Google Cloud infrastructure.

### Undergraduate Teaching Assistant

Feb. 2025 – Sep. 2025

*Indian Institute of Technology Madras*

*Chennai, Tamil Nadu*

- Conducted weekly tutorials and doubt-clearing sessions for *CS2007: Machine Learning Techniques*.
- Mentored students on Linear Regression, Logistic Regression, PCA, EM Algorithm, K-Means, Naive Bayes, SVM, Decision Trees, and Ensemble Methods.
- Evaluated assignments involving mathematical derivations and algorithmic understanding of ML models.
- Collaborated with the course instructor to refine problem sets, question banks, and assessment rubrics.

## ACADEMIC & MENTORSHIP ACTIVITIES

- Machine Learning Mentor for school students under the CODE School Connect Programme.
- Machine Learning Project Mentor for IIT Madras Data Science students.
- Linux Lab Assistant for IIT Madras BS Electronics Systems students.

## PROJECTS

### Instapark : Vehicle Parking App | *Flask, VueJS, SQLite, Redis, Celery, Bootstrap* July 2025 – Aug. 2025

- Built a Flask and SQLite based multi-user parking management system with Admin and User roles.
- Implemented role-based access control, automatic parking spot allocation, and time-based cost computation using Python.
- Integrated Redis caching and Celery background jobs for reminders, monthly reports, and CSV export.

### Engage2Value : From Clicks to Conversions | *Python, Pandas, Scikit-learn* Apr. 2025 – Jul. 2025

- Developed a regression-based machine learning model using scikit-learn to predict purchaseValue from multi-session data.
- Performed feature engineering and preprocessing using pandas and NumPy on behavioral, device, traffic source, and geographic features.
- Achieved an **R<sup>2</sup> score of 0.65361**, placing in the **87th percentile** among 1800 participants.

## TECHNICAL SKILLS

**Languages & Databases:** Python, JavaScript, SQL

**Frameworks & Libraries:** Flask, Django, VueJS, NumPy, pandas, Matplotlib, scikit-learn, PyTorch, Hugging Face

**Cloud & Systems:** Linux, Google Cloud Platform (Compute Engine, Apache Beam)

**Developer Tools:** Git, VS Code, Google Workspace (Docs, Sheets, Slides)