Nurturing Deep Learning Capabilities Through UNext's Sandbox Environment

How A Consulting Firm's Workforce Mastered
Advanced Skills In Our Digital Playground

unext

Overview

Practice makes execution seamless.

Enterprises that thrive on innovation and experimentation are always a step ahead of the market. However, gaining the innovative edge requires effort and the ideal environment to ideate, fail, and iterate.

As businesses and enterprises test new ideas and functionalities, it becomes imperative that their existing features and modules function unhampered. There is always a certain risk involved when deploying new features on live systems as they could fuel downtime, data breaches, and more.

That's why a safe, isolated space is ideal for engineers, developers, and specialists to creatively and analytically experiment ideas and techniques. Such a virtual playground is called a sandbox environment and UNext is excited to have offered this feature to a prominent consulting firm's tech professionals to get hands-on with their learning.

Let's find out how UNext configured specific sandbox labs for the organization and enabled an experiential learning journey to the participants.

The Opportunity Statement

The collaborating enterprise is a prominent player in the consulting space. With an aim to instill advanced competencies in Artificial Intelligence, the organization partnered with UNext to deploy a truly bespoke program.

Post program completion, the enterprise further wanted to nurture practical exposure and capabilities in its participating workforce in deep learning. That's when it approached us for virtual sandbox labs.

UNext conceptualized and configured virtual environments for participants to inculcate skills in computer vision, covering –

Object/Segmentation Problem Statements	**GPU-based Runtime**	**Data Cleaning**
Model Development & Model Benchmarking	**Custom Visualizations**	**Model Conversion, Deployment, And Monitoring**

The opportunity here was to prepare learners to master computer vision applications environment before working on live projects.

Learner Profile

Tech professionals who have completed their AI program and were looking for hands-on training in tools and techniques

Number of Participants

50

Sandbox Access Duration

06
Months
(100 hours)

The Solution

To complement the partnering organization's vision to nurture practical competencies in machine learning and deep learning in its learners, UNext configured a cloud-based sandbox environment along with 8 original use cases tailored to the enterprise's requirements.

Skills Nurtured In Each Case Study

Module	Topics
Project 1: Linear Regression	Multiple Linear Regression Key assumptions Regression Evaluation Metrics Multicollinearity
Project 2: Classification Models	Classification Models and Classification Evaluation Metrics
Project 3: Timeseries Models	ARIMA/SARIMAX Models
Project 4: Clustering Models	Clustering through K means/Dendrograms Elbow Score Silhouette Score
Project 5: Structured Data Regression	Deep Learning Skills through Regression Techniques
Project 5: Structured Data Regression	Deep Learning Skills through Regression Techniques
Project 6: Structured Data Classification	Deep Learning skills through Classification Models.
Project 7: Image Segmentation & Classification	Deep Learning skills through Segmentation and Classification Models using image data
Project 8: Text Classification	sing NLP techniques on data preprocessing and performing text classification using Deep Learning techniques

Sandbox Environment Setup

We set up and deployed a truly custom sandbox environment for learners to practice and refine their proficiency in machine learning and deep learning techniques. For this, we:

◦ Configured necessary infrastructure including compute resources, storage, and networking components

◦ Developed models, algorithms, and pipelines with original code and methodologies.

Key Highlights

- We also offered asynchronous SME support through discussion forums to enable mentoring and interactions from industry experts.
- Ensured 99% uptime of cloud sandbox environments, including holidays and after-hours.
- Replenishment of new datasets in case of expiry
- Dedicated helpdesk in case of guidance, tech diagnosis or additional support

The Result

The sandbox environment deployed by UNext incredibly complemented the organization's vision to nurture pure talent in machine learning and deep learning technologies. With the hands-on exposure to tools and techniques and practice on real-world case studies, learners were able to master the technology and seamlessly go live on projects.

Through the collaboration, the enterprise benefitted through:

- Faster development cycles
- Enhanced innovation
- Reduced risk of production incidents
- And improved collaboration and team productivity

If you intend to deploy a custom sandbox environment for your enterprise, we urge you to get in touch with us today.

About UNext

UNext (Part of Manipal Education and Medical Group) prioritizes 360-degree talent transformation through upskilling. We offer industry-relevant programs that help enterprises transform their talent through customized learning solutions across hierarchies. We have partnered with clients across IT-ITeS / BFSI / Automobiles / Healthcare / Manufacturing / Consulting / Retail / Pharma & more segments in training tech and non-tech audiences across various customized programs.

15+ years of providing learning solutions	**40,000+** Pre-joining programs
20,000+ Corporate bootcamps	**6,000+** Role based programs

We have partnered with clients across IT-ITeS / BFSI / Automobiles / Healthcare / Manufacturing / Consulting & more segments in training tech and non-tech audiences in emerging technologies through various customized programs.

Transform
Your Workforce With Us

By tailoring programs for diverse domains and market segments across distinct functional roles, we offer the most practical and relevant workforce transformation programs in the market. Our program ecosystems are designed to seamlessly tackle massive volumes of simultaneous cohorts so you can precisely implement your workforce transformation goals. Reach out to us today.

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