Yash Pal

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EXPERIENCE

Software Development Engineer Gurgaon, India
Onemind Services LLC *Aug 2023 – Present*

- Designed and deployed **Machine Learning powered log analytics pipelines** using **Elasticsearch** and **Scikit-Learn** for **anomaly detection** and **error classification**, along with custom **Elasticsearch monitoring templates**, enabling **real-time dashboards**, **intelligent automated alerts**, and reducing manual troubleshooting effort by **45%**.
- **Containerized ML and backend systems** using **Docker** and implemented automated CI/CD workflows via **GitHub Actions**, enhancing code reproducibility, deployment speed, and cross-environment reliability.
- Integrated **Azure Entra SSO** with the **Django REST Framework**, utilizing **Microsoft Graph API** to retrieve user and group data for automated authentication, access management, and secure role-based authorization.
- Developed a comprehensive **Scheduler Plugin** in **NetBox** featuring **time-based constraints**, **repeat bookings**, **reservation length**, and **buffer time**, enabling dynamic, conflict-free, and scalable resource scheduling.
- Automated **network and inventory provisioning** between **NetBox** and **Aruba Central** using **Redis caching** and **batched API calls**, optimizing data transfer efficiency and reducing provisioning time by **40%**.
- Managed **DigitalOcean droplet synchronization** through **DiffSync** and streamlined **GitHub data ingestion** for device and module repositories, improving operational consistency and reducing manual intervention.

PROJECTS

Image Classification from Scratch

- Designed and trained **CNNs** for **multi-class image classification** from scratch, showcasing deep understanding of **network architecture**, **parameter tuning**, and optimization without using pre-trained models.
- Achieved **91% accuracy** by applying **data augmentation**, **batch normalization**, **dropout**, and **learning rate scheduling**, effectively improving model **generalization**, **stability**, and performance.
- Visualized **feature maps** from intermediate **CNN layers** to interpret learned features, detect overfitting patterns, and further **optimize model accuracy** through informed architectural adjustments.

Reddit Comment Violation Classifier

- Developed an **NLP model** to detect content rule violations for automated moderation.
- Implemented a **comment moderation system** using the **Google Gemma 3 transformer model**, fine-tuning it to classify comments by **rule type** (hate speech, spam, harassment), significantly improving **detection accuracy**, reducing **moderation response time**, and streamlining automated review processes.
- Automated **pre-processing** and **inference pipeline** for **large-scale comments**, improving efficiency.

NetBox Open-Source Contributions

- Added **features**, fixed **bugs**, and optimized **NetBox modules**, improving functionality and stability.
- Enhanced **API performance** and contributed via **code reviews** and **pull requests**, ensuring high-quality integration.
- Implemented **dynamic inventory updates**, **role-based permissions**, and automated **data synchronization workflows**, streamlining inventory management, enhancing security, and reducing manual effort.

SKILLS

Programming & Development: Python, C/C++, SQL, Django, Django REST Framework

Machine Learning, Data Science & Tools: Scikit-learn, TensorFlow, PyTorch, XGBoost, NumPy, Pandas, Matplotlib

EDUCATION

Bharat Institute of Technology, Meerut *July 2019 – Aug 2022*
*Bachelor of Computer Applications | Focus in **Computer Science, Applied Statistics***

ACHIEVEMENTS

- **Kaggle Notebooks Expert:** Recognized for building machine learning models and active participation in competitions.
- **Team Lead:** Managed backend design, sprint planning, and task delegation under **Scrum methodology**.

CERTIFICATIONS

- **Supervised Machine Learning: Regression and Classification, Advanced Learning Algorithms**
- **Unsupervised Learning, Recommenders, and Reinforcement Learning**