

Yougal Attri

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PROFESSIONAL SUMMARY

Analytical and detail-oriented Data Science professional with proven experience in designing, training, and deploying scalable machine learning and deep learning models. Skilled in building end-to-end AI pipelines using Python, PyTorch, and TensorFlow, with a strong focus on geospatial data analysis, image segmentation, and real-world classification tasks. Demonstrated ability to deliver production-grade solutions and collaborate effectively in agile, high-performance teams.

PROFESSIONAL EXPERIENCE

AI/ ML Intern - Panacea Infosec Pvt. Ltd New Delhi, India June 2024 - December 2024

- Fine-tuned advanced segmentation models (SAM, SegFormer) on complex geospatial datasets, achieving up to 75% accuracy in variable conditions.
- Engineered scalable training and inference pipelines leveraging Python, PyTorch, TensorFlow, and FastAPI for seamless model deployment
- Conducted thorough experimentation and evaluation to optimize model robustness in real-world remote sensing scenarios.

Full Stack Developer Intern (MERN) – Panacea Infosec Pvt. Ltd. January 2025 – April 2025
New Delhi, India

- Developed responsive frontend modules for a cybersecurity audit web application using React.js, HTML, CSS, and JavaScript, improving usability and workflow digitization.
- Implemented RESTful APIs using Node.js and Express.js and integrated secure JWT-based authentication with cookie session management for role-based access control.
- Worked with MongoDB, Git, and Postman to manage data storage, version control, and API testing in an agile team environment.

Data Science Intern – Sabudh Foundation, Mohali, Chandigarh January 2024 - June 2024

- Designed and implemented ML models using supervised and unsupervised learning for social impact datasets.
- Built a high-accuracy classification pipeline (95%) to automate data categorization and generate actionable business intelligence.
- Streamlined data workflows using Pandas and scikit-learn, improving analysis turnaround by 30%.

KEY PROJECTS

Geospatial Image Segmentation using SAM (Meta AI)

- Customized and fine-tuned Segment Anything Model (SAM) for land-use classification and geospatial boundary detection.
- Achieved a 70% improvement in segmentation accuracy over baseline models via transfer learning and data augmentation strategies.

Semantic Segmentation with SegFormer (Transformer Architecture)

- Developed a multi-class segmentation pipeline using SegFormer for remote sensing image analysis.
- Reached 75% model accuracy through hyperparameter optimization and application-specific loss function tuning for imbalanced classes.

Food Product Classification System

- Designed a complete ML pipeline for food product recognition, achieving 95% classification accuracy.
- Built a custom data collection system via web scraping and processed data using Python, Pandas, and scikit-learn for predictive modeling.
- Deployed modular and reusable codebase to support scalability for market intelligence tools.

EDUCATION

Bachelor of Technology (Honors), Computer Science & Engineering 2020 - 2024
(Specialization: Data Science)

Akal University, Bathinda, India

Senior Secondary Education (Class XII) 2020

B.L Central Public Sr. Sec. School, Kunihar [H.P]

TECHNICAL SKILLS

- **Languages:** Python, JavaScript, C/C++
- **Frontend Technologies:** React.js, HTML5, CSS3, Bootstrap
- **Backend Technologies:** Node.js, Express.js, FastAPI, RESTful APIs
- **Database:** MongoDB, SQL(Basic)
- **Frameworks/Libraries:** PyTorch, TensorFlow, scikit-learn, FastAPI, OpenCV
- **Data Tools:** NumPy, Pandas, Matplotlib, Seaborn
- **Core CS:** Data Structures, Algorithms
- **Version Control:** Git, GitHub
- **Tools:** Jupyter, VSCode, Postman, Docker (basic)

LEADERSHIP AND INITIATIVES

Founder Member – Turing Truncheons Student Club

- Spearheaded the university-wide Engineer's Day event with 200+ attendees, showcasing leadership and event planning expertise.
- Awarded 2nd place in a Start-up Pitch Competition, recognized for innovative problem-solving and effective communication.