Vishvam Porwal

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EDUCATION

University of Guelph   Guelph, ON, Canada
M.Sc in Computer Science(Thesis-based) with a collaborative specialization in AI.   *September 2023 – September 2025*

Rajiv Gandhi Proudyogiki Vishwavidyalaya   Bhopal, MP, India
Bachelor of Technology in Computer Science and Engineering.   *May 2019 – June 2023*

EXPERIENCE

Machine Learning Intern   Indore, MP, India
Quantive   *December 2022 – June 2023*
- Spearheaded enhanced Time Series Forecasting initiatives, Large language models, and their quantization.
- Developed Metainsight engine for automated extraction of complex statistical highlights in organizations, resulting in a 50% reduction in time spent on data analysis tasks.

Mitacs Globalink Research Intern   Guelph, ON, Canada
University of Guelph(Under the supervision of Prof. Asim Biswas)   *May 2022 – October 2022*
- I was one of 150 candidates from my field worldwide to be selected for this prestigious internship.
- Pioneered soil characterization through the implementation of computer vision techniques, resulting in a remarkable 200-hour reduction in lab analysis time for farmers.
- Translated research into a seamlessly integrated mobile application for the agriculture ecosystem.

Machine Learning Intern   Indore, MP, India
Quantive   *October 2021 – May 2022*
- Instrumental POC that led to a $1,000,000 contract with a large multinational retail giant.
- Orchestrated and implemented an end-to-end highly configurable automated production environment preprocessing, and inference pipelines which reduced the run time by 86%.
- Invented a state-of-the-art algorithm, running metric correlation, improving time & space complexities by 98%.
- Employed local feature aggregation in our post-processing, significantly enhancing system recall by 13%.
- Introduced a textual-guided visual attention technique for product matching, which increased the accuracy by 28%.
- Incorporated CLIP to pre-train the model on 100,000 informative image-text batches, resulting in accelerated convergence by 50%.

GSSOC'21, PSoC'21   Remote
Open Source Developer   *March 2021 – September 2021*
- Implemented ML-integrated web project admin section with analytics, including a Heat map increasing users by 40%. Created platform for new open-source contributors, fetching good first issues and implementing static code analysis.

PROJECTS

MPD Industries(Freelance) | *Dart, Flutter, Firebase, Python, Flask, MongoDB*   June 2021 – October 2021
- Launched a highly scalable cross-platform ERP application utilized by 1000-5000 users and developed a cutting-edge e-commerce platform tailored to the specific needs of 3000-4000 users, delivering exceptional customization capabilities.

PUBLICATIONS

- **Vishvam Porwal**, Sambal Shikhar, Arpitanshu (2023). Scalable Pairwise Similarity Measures for Time Series Analysis. Manuscript in preparation.
- Mojtaba Naeimi, **Vishvam Porwal**, Abhinandan Roul, Ayan Biswas, Dr.Asim Biswas(2023). Soil Organic Matter Prediction from Computer Vision. Manuscript in preparation.

AWARDS AND ACHIEVEMENTS

ACM-ICPC Regionalist   2020
- A prestigious programming contest held for over 13 years. Led a team to Asia-wide level success.

Won Odyssey Hackathon   2022
- OurWavehub conducted this hackathon in Brampton, CA, and won prizes worth $10000.

TECHNICAL SKILLS

Languages: Python, C++, SQL, NoSQL, Dart, JavaScript
Frameworks: PyTorch, Flutter, Flask
Developer Tools: Git, Docker, Firebase, Elasticsearch, MongoDB, GitHub Workflows
Libraries: Pandas, NumPy, Matplotlib, Scikit-learn