Shyamendra Singh

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EDUCATION

B.Tech (Agricultural Engineering)	Dayalbagh Educational Institute, Agra	7.77 CGPA (Till 4th Sem)	2026 (Pursuing)
Intermediate (XII)	SMT Maharaj Kunwari Inter College, Agra	80.2%	2021
Highschool (X)	SMT Maharaj Kunwari Inter College, Agra	86.5%	2019

PROFESSIONAL EXPERIENCE

Virtual Labs, MoE-NMEICT **July 2023 - Present**

- *Student Intern* *Agra, UP*
  - Co-operating as an intern in Virtual Labs, a Ministry of Education project under NMEICT, at my college.
  - Responsible for designing simulations, illustrations, and preparing content of the virtual experiments.

ICAR - Indian Agricultural Research Institute **June 2024**

- *Internship Trainee* *Pusa, New Delhi*
  - Gained expertise in mechatronics, 3D CAD and 3D printing, applying these skills to prototype tools and equipments for agricultural applications. Developed *Wireless BMI Measuring Device*.

Hankernest Technologies Pvt. Ltd. **June 2022**

- *Internship Trainee* *Dharamkot, HP*
  - A training-cum-internship program covering python programming, practical AI/ML (transfer learning system), practical electronics, internet of things, 3D printing, and CAD designing.

TECHNICAL SKILLS & INTERESTS

- **3D CAD & Modelling:** SolidWorks
- **GIS & Spatial Analysis:** QGIS, ArcGIS
- **Programming & Scripting:** Python, HTML/CSS
- **Other Tools:** Microsoft Office, CropWAT
- **Interests:** Equipment Designing, 3D Printing, Machine Learning, GIS in Agriculture

PROJECTS

Wireless BMI Measuring Device | *(3D CAD & Printing, ESP32, Arduino IDE)*
A portable device for wireless measurement of anthropometric dimensions and body mass index using sensors and microcontrollers, advancing ergonomic studies in agricultural settings.

Low-cost Automatic Hydroponic Unit | *(3D CAD, Manufacturing)*
A vertical hydroponic system designed to reduce costs by 70% and optimize space usage by 20%, featuring automation for nutrient management and watering schedules.

Crop Recommendation Web App | *(Python, KNN, Flask)*
A web application utilizing the k-nearest neighbors (KNN) algorithm for crop recommendation based on soil and climatic parameters, aimed at enhancing decision-making for farmers.

Soil Texture Calculator | *(Python, Matplotlib, Flask)*
A web-based tool for soil classification according to USDA standards, providing automated textural analysis and generating ternary graphs for visual representation.

CERTIFICATIONS

- ***Supervised Machine Learning: Regression and Classification*** course from DeepLearning.AI
- ***Artificial Intelligence for Everyone (AI4E)*** course from Dayalbagh Educational Institute, Agra
- ***Rajasthan State Certificate in Information Technology (RSCIT)*** from VMOU, Kota

HACKATHONS & WORKSHOPS

- Qualified the institution level stage of **Smart India Hackathon (SIH 2023)**
- Participated in one day online workshop on **Remote Sensing based Data Analytics in Agriculture** *organised by IIRS*
- Participated in one-week hands-on workshop on **Digital Manufacturing** organised by *Dayalbagh Educational Institute, Agra*