CURRICULUM-VITAE

Er. SAMAR BHATTARAI

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SUMMARY

High-achieving Registered Computer Engineer (NEC) with a strong foundation in neural network architectures and data-driven development. Proficient in implementing deep learning models using TensorFlow and Keras, with specialized technical skills in NumPy and Pandas for large-scale data analysis. Skilled in model training and performance evaluation. Committed to research driven AI development and solving complex engineering challenges through the application of intelligent (AI) systems.

PERSONAL DETAILS

Father's Name	Baburam Bhattarai
Mother's Name	Khim Kumari Bhandari
Permanent Address	Bharatpur-21, Chitwan
Date of Birth	15-12-2002
Sex	Male
Nationality	Nepali
Religion	Hindu
Marital Status	Single
Passport No.	11831983

ACADEMIC QUALIFICATION

Examination Passed	Board/University	Institution	GPA/Result	Passed Year (AD)
Engineering License	Nepal Engineering Council	NEC Examination	Passed	2026
Undergraduate	Pokhara University	United Technical College	3.93/4.00	2025
Higher Secondary	NEB	Gandaki Boarding School	3.38/4.00	2020
Secondary (SEE)	NEB	Peace Zone Academy	3.80/4.00	2018

RESEARCH & PUBLICATIONS

AgroGuide: A Crop Recommendation System | Manuscript Submitted (Dec 2025) Nepal Journal of Science and Technology (NJST)

- Status: Under Review at the Nepal Journal of Science and Technology (NJST).
- Conducted research on predictive agricultural systems to optimize crop yields based on soil and environmental data.
- Implemented a Random Forest algorithm for predictive analysis, achieving data-driven decision-making for localized farming.

TECHNICAL SKILLS

- Artificial Intelligence & Machine Learning: Neural Network Architectures, Vectorized Model Implementation (NumPy), Supervised Learning, Transfer Learning, Model Evaluation
- Mathematical Foundations: Linear Algebra, Calculus for Deep Learning
- Programming Languages: Python (Advanced), C, C++, Java, Javascript, HTML/CSS.
- Data Science Libraries: NumPy, Pandas, Scikit-learn, TensorFlow, and Keras.
- Database Management Systems: MongoDB and MySQL.
- Backend Development: Django, RESTful API Integration, Node js, Express.
- Software Engineering & Tools: Agile Methodologies, Git Version Control, Docker Containerization, and Clean/Efficient Code Design.

TECHNICAL PROJECTS

AgroGuide (Crop Recommendation System) | https://github.com/SamarBhattarai/AgroGuide

MERN Stack, Flask, Machine Learning (Pandas, Numpy, Scikit-Learn), OpenWeather API

- Development of an AI-based recommendation platform suggesting suitable crops based on real-time soil and weather conditions.
- Integration of a Flask API and Random Forest algorithm for predictive analysis, alongside an eSewa payment gateway for secure transactions.
- Enhanced decision-making for farmers through data-driven recommendations and integrated weather insights.

Task Unity – Project Collaboration Platform | https://github.com/SamarBhattarai/project_taskunity

Django, TailwindCSS, SQLite

- Design and development of a web-based project management system featuring Kanban boards, real-time chat, and task tracking.
- Implementation of secure user authentication, file sharing capabilities, and role-based access control for efficient project workflows.
- Optimization of team productivity through a responsive and clean user interface.

Alumni Management System | https://github.com/SamarBhattarai/Alumni-Management-System

PHP, Bootstrap, HTML, CSS, MySQL

- Development of a responsive web platform facilitating networking and collaboration between alumni, students, and administrators.
- Creation of specialized modules for project showcases, event management, and job postings.
- Ensured mobile-friendly design with a strong focus on accessibility and user engagement.

WORK EXPERIENCE

IT Associate | Daniel Engineering Consultancy and Construction Pvt. Ltd.

May 2026 – Present | Ratnanagar-09, Chitwan

- Managing IT infrastructure, networks, and hardware to maximize system performance and uptime.
- Providing technical support to resolve staff hardware, software, and network issues.
- Administering system backups, data management, and security protocols to protect company assets.
- Collaborating with teams to streamline digital workflows for engineering projects.

PROFESSIONAL DEVELOPMENT & CERTIFICATION

- **Neural Networks and Deep Learning | DeepLearning.AI (Coursera) | Completed Jan 2026 (https://coursera.org/share/1c59438d4070a8dd8cfe5229bdf86ac0)**
    - Specialized in building and training L-layer deep neural networks using Python and NumPy.
    - Mastered the mathematical foundations of backpropagation and gradient descent optimization.

- **Improving Deep Neural Networks: Hyperparameter Tuning, Regularization and Optimization | Completed March 2026 (https://coursera.org/share/4cdb632454bf3420b5cc4d2313c8494c)**
    - Optimized model training using Dropout, L2 Regularization, Adam, and Batch Normalization.
    - Applied systematic hyperparameter tuning to enhance model performance and generalization.
- **Structuring Machine Learning Projects | DeepLearning.AI (Coursera) | Completed June 2026 (https://coursera.org/share/befa09b47c72578bf160ebd59e0a1053)**
    - Learned strategies for setting up evaluation metrics and building effective train/dev/test splits for ML projects.
    - Formulated approaches for diagnosing end-to-end ML errors and prioritizing iterative development pipelines.

- **Deep Learning Specialization | DeepLearning.AI | In Progress**

- Currently completing advanced units on Convolutional Neural Networks (CNNs) and Sequence Models.

EVENTS & LANGUAGES

- **Events**:
  - **U-TEC HACKATHON Beta (β)**: Organizer in the Medical Department, December 2024.
  - **U-TEC HACKATHON Alpha (α)**: Organizer in the Logistics Department, November 2022.
- **Languages:** Nepali (Native), English (Proficient), Hindi (Proficient).

DECLARATION

I hereby declare that above given details are true and correct to the best of my knowledge and belief.