

BASIL EBINESAR

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 Basil |  basilll007

Hammond, IN

OBJECTIVE

Motivated and research-driven candidate with a strong foundation in Artificial Intelligence and one year of professional experience, seeking a graduate assistantship position to contribute to ongoing research projects while further developing expertise in AI and data-driven methodologies.

EXPERIENCE

- **H1 Enterprise** November 2024 – June 2025
AI Engineer remote
 - Led R&D on applying AI technologies in agriculture, exploring use cases such as yield prediction and pest detection.
 - Designed and developed an industrial chatbot to support client operations, improving query resolution efficiency.
- **6F Tech Consultancy** June 2024 – November 2024
AI Engineer Chennai, India
 - Developed and implemented AI-powered chatbots for HR and production managers, streamlining internal communication processes.
 - Deployed chatbot systems using Python and Django, ensuring scalability and integration with existing workflows.
- **AG Media** Jan 2024 – May 2024
Web Development Intern Madurai, India
 - Created responsive websites for client projects using HTML, CSS, JavaScript, WordPress and backend frameworks.
 - Collaborated with designers to deliver user-friendly web solutions aligned with brand objectives.

EDUCATION

- **Purdue University Northwest** 2025 – Present
M.S. in Applied Artificial Intelligence Indiana, USA
 - Current Graduate Student specializing in AI applications and research
- **Kamaraj College of Engineering and Technology** Graduated: 2024
B.Tech in Computer Science and Engineering Tamil Nadu, India
 - CGPA: 8.71/10
- **Don Bosco Matric Higher Secondary School** 2020
Higher Secondary Education (HSE) Tamil Nadu, India
 - Percentage: 74%

PROJECTS

- **Network Traffic Analyser – Classification of Network Attacks**
Tools: Python, Random Forest, Scikit-learn, Wireshark
 - Designed a Random Forest-based classifier to detect and categorize various types of network attacks from packet data.
 - Processed and labeled traffic data using Wireshark captures for model training.
 - Achieved over 90% accuracy in detecting anomalies across different traffic classes.
 - Built a dashboard to visualize intrusion alerts and classification reports.
- **Lichen Image Classification Using Transfer Learning**
Tools: Python, TensorFlow, CNN, Transfer Learning
 - Applied transfer learning techniques using pre-trained CNN models to classify lichen species from image datasets.
 - Conducted data augmentation to address class imbalance and improve model generalization.
 - The research outcomes are under review for publication in the *Journal of Computer Science and Agriculture*.
- **Brain Tumor Segmentation and Classification**
Tools: Python, 3D CNN, YOLOv5, PyTorch
 - Designed a 3D Convolutional Neural Network to classify brain tumors from volumetric MRI scans.
 - Integrated YOLOv5 for real-time tumor segmentation, achieving high precision in tumor localization.
 - Validated the model on open-source medical imaging datasets with strong performance in classification and segmentation tasks.
- **LoRa Signal Classification using CNN**
Tools: Python, CNN, LoRa, Signal Processing
 - Built a custom CNN model to classify LoRa signal types for wireless communication analysis.
 - Preprocessed and converted time-series signals into spectrograms for effective CNN training.
 - Improved classification accuracy by tuning hyperparameters and optimizing signal features.

SKILLS

- **Programming Languages:** Python, C
- **Web Technologies:** HTML5, CSS3, Django, Flask, Bootstrap
- **Database Systems:** MySQL, PostgreSQL, SQLite
- **Data Science & Machine Learning:** Scikit-learn, TensorFlow, Keras, NumPy, Pandas, Matplotlib
- **Cloud Technologies:** Google Cloud Platform, Azure
- **DevOps & Version Control:** Git, GitHub, Docker, CI/CD (basic), VS Code
- **Tools & Technologies:** Wireshark, OpenCV, YOLO, Jupyter Notebook, Anaconda
- **Research Skills:** Data Collection, Model Evaluation, Literature Review, Paper Drafting, Reproducibility

CERTIFICATIONS

- **Microsoft Certified: Azure Fundamentals (AZ-900)**
- **Microsoft Certified: Azure AI Fundamentals (AI-900)**
- **Microsoft Certified: Azure Data Fundamentals (DP-900)**
- **Microsoft Certified: Azure Data Scientist Associate (DP-100)**
- **IBM Data Science Professional Certificate - Coursera**
- **IBM Applied Data Science Capstone Certificate - Coursera**

AWARDS

- **Gold Medal – Best All-Rounder (2023–2024)**
Kamaraj College of Engineering and Technology
 - Recognized as the top-performing student across academics, leadership, and extracurriculars for the academic year.
 - Awarded the institution's highest honor for all-round excellence.
- **Best Presentation Award – AI in Medical Imaging**
Tech Expo Symposium
 - Presented an innovative approach using 3D Convolutional Neural Networks to detect and classify brain tumors from CT/MRI scans.
 - Recognized for clarity, technical depth, and research contribution.
- **Best NCC Cadet**
National Cadet Corps (NCC), 28TNBN Viruthunagar Unit
 - Honored for discipline, leadership, and outstanding participation in national-level NCC programs and training camps.
 - Selected as the best-performing cadet among multiple institutions.
- **Invited Guest Lecturer – AI & Cloud Computing**
Kamaraj College of Engineering and Technology
 - Delivered a guest lecture to undergraduate students on the fundamentals and real-world applications of AI and cloud technologies.
 - Recognized by faculty for effective knowledge delivery and student engagement.
- **Smart India Hackathon – Grand Finale Participant**
Organized by Government of India
 - Selected among top national teams for developing a network traffic analyzer using AI to detect cyber-attacks in real time.
 - Represented the institution in the national-level grand finale event.

VOLUNTEER EXPERIENCE

- **Senior Under Officer – NCC Cadet**
National Cadet Corps (NCC), 28TNBN Viruthunagar Unit
 - Led and trained junior cadets in drills, discipline, and camp preparation as a Senior Under Officer.
 - Organized group activities and coordinated team operations during NCC events and training programs.
 - Developed strong leadership, public speaking, and analytical thinking skills through field exercises and mentoring.