# Hemantha Krishna Bharadwaj

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#### **Education**

#### Georgia Institute of Technology, Atlanta, GA

MS Electrical and Computer Engineering, DSP-Machine Learning Specialization (Aug 2022 - May 2024)

Teaching Assistant, OMSCS Machine Learning

GPA: 3.83/4.0

# Birla Institute of Technology and Science [BITS], Pilani, India

B. Eng. Electrical and Electronics (Aug 2018 – May 2022)

GPA: 9.3/10.0

#### **Skills**

Programming Languages: Python, C, C++

Machine Learning: PyTorch, TensorFlow, Scikit-learn

Retrieval & Search: Vector Databases, Semantic and Hybrid Search, Embedding Models

NLP & LLMs: OpenAl API, OpenAl Evals, Langchain, Claude API, Azure Al Studio, HuggingFace, DSPy

Cloud & Deployment: Azure Al Studio, Git, Docker

## **Experience**

#### **Machine Learning Data Scientist**

RippleWorx (Jun 2024 – Present)

Developed and deployed LLM systems for diverse applications, incorporating plug-and-play LLM subsystems for output generation and prompt optimization.

Engineered hybrid search engines, improving search quality and hit rate by 80%.

Implemented vector databases and retrieval algorithms, reducing response times by 50%.

Deployed scalable, production-ready ML systems using Azure Al Studio.

# **Generative Al Technical Lead**

Airling (Jul 2023 - Jan 2024)

Led a cross-functional team in developing AI systems enabling personalized conversations for Indian automotive OEMs.

Leveraged LLMs and retrieval augmented generation to create tailored experiences for users and service engineers.

### **Publications**

H. K. Bharadwaj et al.," A Review on the Role of Machine Learning in Enabling loT Based Healthcare Applications," in IEEE Access, vol. 9. Link [150+ citations]