

Ashvath Venkataramana Cheppalli

American National | (857)3975746 | cheppash2@gmail.com| Boston, MA, 02119

Portfolio: ashvathhh.github.io/Profile

EDUCATION

Northeastern University , Boston, MA	Sep. 2025 – Present
Khoury College of Computer Sciences	Expected Graduation: 2027
Candidate for a Master of Science in Artificial Intelligence	
Related courses: Foundation of Artificial Intelligence, Algorithms, Applied Programming and Data Processing for AI	
Rajalakshmi Engineering College , Chennai, India	2025
Bachelor of Technology in Artificial Intelligence and Machine Learning,	GPA: 7.49
Related courses: Computer Vision, Databases, Natural Language Processing, Deep Learning	

TECHNICAL KNOWLEDGE

Languages:	Python, JS, HTML, CSS, R
Databases:	MySQL
Skills:	Reinforcement Learning, NLP, Machine Learning, Deep Learning
Libraries:	PyTorch , Keras, TF, Pandas, Scikit-learn
Certifications:	Microsoft – Career Essentials in GenAI, Coursera- AI for everyone

WORK EXPERIENCE

Skillible , Chennai, India	July 2024 – August 2024
AI Intern	
• Analyzed bias mitigation strategies and evaluated generative AI model performance across tasks, implementing advanced prompt engineering techniques to optimize transformer architecture outputs and large language model capabilities.	
Anugraha Systems (Rajalakshmi Engineering College) , Chennai, India	
Web Development Intern Jan 2023 – Jan 2023	
• Developed end-to-end web applications using front-end and back-end technologies, implementing full stack solutions across the software development lifecycle.	

PROJECTS

Geospatial Building Orientation Detection System	Aug 2025 – Present
• Built Python geospatial pipeline using Shapely, R-tree indexing and ijson streaming to process 11M+ building footprints with 95% coverage for CA/TX addresses.	
• Implemented geometric Edge Analysis with outward normal selection and street name matching to resolve 180° orientation ambiguities on corner lots.	
• Achieved 95% memory reduction and sub-second query times through spatial indexing and streaming JSON parsing.	
Intelligent Human Detection System For Emergency Fire Evacuation Using YOLOv8 Aug 2024 – Apr 2025	
• Fine-tuned YOLOv8 deep learning model on custom thermal imaging dataset achieving 89.6% mAP50 and 86.7% precision for human detection in low-visibility fire evacuation scenarios	
• Developed Flutter mobile application with video processing pipeline, YOLOv8 inference engine for post-incident rescue analysis.	
AI-Optimized Energy Consumption Forecasting System Jan 2024 – Apr 2024	
• Developed ML regression model on 1M+ consumption records achieving 0.038 kWh MAE (95% improvement) for real-time energy forecasting	
• Performed feature engineering and EDA using Python, identifying peak consumption patterns for grid optimization	

INTERESTS/ACTIVITIES

• President, Rotaract Club of Rajalakshmi Engineering College	July 2023 – Jun 2024
• Awarded Best Social Impact Project for developing a Mental Health Chatbot at Rajalakshmi Engineering College's Centre For Design Thinking	April 2024