

# Navaneeth Sivakumar

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## Education

- **Vellore Institute of Technology, Chennai** 2021 – 2025  
B.Tech in Computer Science and Engineering — Specialization in AI & ML CGPA: 9.03/10.00

## Skills

**Languages:** Python, TypeScript, SQL, C++, Java

**Frameworks & Tools:** PyTorch, TensorFlow, FastAPI, OpenAI SDK, Next.js, Docker, Scikit-learn, OpenCV, NVFlare

**Areas:** Large Language Models, RAG, Federated Learning, Computer Vision, Sequential Recommendation, NLP

## Experience

- **Exacube Technologies** Chennai, India  
AI Engineer Jul 2025 – Present
  - Built production AI for maritime operations: **DataSense** (NL-to-SQL), **QubeSense** (document intelligence), **Sail-WithAI** (AI CRM), and **Executive Dashboards**; deployed via FastAPI gateways on OpenAI SDK and open-source LLMs.
  - Worked directly with CTOs, CFOs, and CXOs of global shipping companies to translate operational challenges into shipped AI products.
- **Siemens Healthineers** Bangalore, India  
Technical Intern Jan 2025 – Jun 2025
  - Designed and developed a PoC for an LLM-powered clinical workflow application; currently under **patent filing**.
  - Built a FastAPI server architecture to unify access to OpenAI SDK and locally hosted LLMs via standardised OpenAPI endpoints.
- **Intel — Unnati Industrial Training Programme** Bangalore, India  
Industrial Trainee Jun 2024 – Jul 2024
  - Built a contract document analysis system using the CUAD dataset with NER-based clause classification and template deviation detection.
- **Indian Institute of Science (IISc)** Bangalore, India  
Part-time Research Associate, Kotak IISc AI/ML Centre (KIAC) Aug 2023 – Apr 2024
  - Scaled Neural Radiance Fields (NeRF) for accurate 3D reconstruction from drone-captured imagery; built a 360° data collection pipeline for absolute-scale mesh generation.

## Publications

### CRAFT: Cold-Start Recommender with Attention and Federated Training

Navaneeth Sivakumar, R. S. John, A. Bijo

*Nature Scientific Reports, April 2026*

Federated learning recommender addressing cold-start via attention + FedAvg; improves nDCG@20 by up to 16.8% over baselines.

### SURE: Session-Based Uninteresting Item Removal for Enhanced Recommendations

Navaneeth Sivakumar, A. Motha, G. Suganeshwari, S. P. Syed Ibrahim, V. Sugumaran

*IEEE Access, Vol. 13, March 2025*

Association rule mining + backward prediction lifts Mean Reciprocal Rank by 7.31% over state-of-the-art baselines.

## Achievements

- **Winner** — Bengaluru Last Mile Challenge 2025 (urban mobility AI hackathon) Bangalore, India
- **Winner** — University AI Hackathon on Explainable AI 2024 Chennai, India
- **Co-inventor** — Patent-pending clinical LLM workflow application (Siemens Healthineers) 2025
- **Finalist** — IEEE YESIST12 2023 Alexandria, Egypt
- **97<sup>th</sup> percentile** — JEE Mains 2021 2021

## Projects

- **MedLensAI** — Multi-modal clinical diagnostic assistant using Google MedGemma; image-based diagnosis, symptom-image correlation, and report summarisation via a Streamlit interface. 2025
- **Smart Glasses for Visual Impairment** — ESP32 wearable with real-time facial recognition, threat detection, and audio feedback for navigation. 2024

## Certifications

- AI-900: Microsoft Azure AI Fundamentals Microsoft
- Building Transformer-Based NLP Applications NVIDIA
- Advanced Learning Algorithms Coursera — Andrew Ng
- Introduction to Packet Tracer Cisco

## Community Experience

- **National Service Scheme (NSS)** — Member, VIT Chennai 2021 – 2025