Arvin Nooli

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EDUCATION

PES University, Bangalore - Specialization in Machine Intelligence and Data Science   **2021 - 2025**
Bachelor of Technology (B.Tech) in Computer Science And Engineering (3rd year)
ROYALE CONCORDE INTERNATIONAL SCHOOL   **2019 - 2021**
High School (11th-12th)- 94% CBSE BOARDS
CMR NATIONAL PUBLIC SCHOOL   **2008 - 2019**
10TH GRADE – 84% CBSE BOARDS

SKILLS

Programming Languages: Python, JAVA , golang, C programming, SQL, HTML, CSS, JavaScript, ReactJS.

Courses & Domains : Machine Learning, Neural Networks, Artificial intelligence, Natural Language Processing, Data Analytics, Deep Learning, Big Data, Software Engineering, DBMS ,DSA, Operating Systems, Computer Architecture, Computer Networks

Software: OpenCV, TensorFlow, PyTorch, SciPy, Flask, OpenCV , Dlib, NLTK, Pandas, Mathplot, RESTful, PostgresSQL, MySQL, MongoDB, YOLO, Mediapipe, Postman, Scikit-learn, Docker, Kubernetes, GIT

EXPERIENCE

Svasthiya Technologies   *Bangalore, India*   **June 2024 - present**
Machine Learning Intern
- Developing a machine learning model using AI technologies Mistral and LangChain to address challenges in healthcare data analysis and patient care optimization.
- Engineered and fine-tuned large language model (LLM) specifically for to handle various types of data and perform text extraction via mistral and validating AI responses with Non AI approaches.

Centre of Innovation and Entrepreneurship (CIE) – PES University   *Bangalore, India*   **June 2024 - July 2024**
Intern (Computer Vision)
- Focused on enhancing security and operational efficiency through advanced video analytics.
- Developing a computer vision prototype to detect unique individuals, count and summarize the number of people, and identify their entries and exits using CCTV footage in an office environment.
- Engineered an integrated system for tracking individuals across multiple cameras, enhancing security surveillance and operational efficiency.
- Implementing an advanced alert mechanism to identify and flag unauthorized personnel by leveraging real-time facial recognition and a database of authorized access.

PWC -SALESFORCE Launchpad Program   *Bangalore, India*   **Jan 2024 - June 2024**
Internship Training
- Actively participating in PwC's esteemed 4-month Launchpad program, focusing on Cloud & Digital innovations, acquired skills in **IT fundamentals**, **RDBMS**, **Java**, and **Salesforce** competencies in a real-world corporate setting.
- Gained competency in new tools and technology customized to the changing demands of the business environment, improving my capacity to adapt and innovate across industries.
- Underwent coursework tailored by PwC to nurture young talent, allowing us to launch our career in technology with a solid foundation in cloud and digital transformation projects.

SAANKHYA LABS *Bangalore, India*   **June 2023 - August 2023**
Intern (5G networks)
- Explored the intricacies of ORAN SC and R1 interface, critical components in 5G networks; comprehensive understanding gained through detailed investigation highlighted their significance in advancing communication technologies.
- Worked primarily on the Service Management and Exposure (SME) domain, which handles API protocols for providers, publishers, and invokers.
- Engaged in the development of CAPIF (Common API Framework), initiated by 3GPP to provide a unified Northbound API framework across 3GPP network functions.
- Validated 10+ API callbacks using Postman to ensure the reliability of communication channels.
- All understandings were carefully documented, offering comprehensive examination of the ORAN SC R1 interface.

Acmegrade *Bangalore, India*   **Jan 2023 - Feb 2023**
Campus Ambassador
- Facilitated connections and opportunities as the primary liaison for AcmeGrade within the campus community, enabling college peers to access internship opportunities in advanced tech domains.
- Fostered an innovative and collaborative atmosphere on campus, facilitating mutual development between peers and AcmeGrade.

PROJECTS

- Intrusion Detection System for ATM Booths using Mediapipe, YOLO v3 modules and Gaze detection system (github)
- Multimodal Emotion Classification using brain signal processing with a therapeutic chatbot with music and movie recommendation
- Retail automation with accelerated check-out and enhanced Theft detection Techniques (capstone)
- Advanced Lane detection techniques using computer vision.
- University database management using SQL (github)
- Stock Market Prediction with Machine Learning (github)
- Yet Another Distributed File System (YADFS) (github)
- Smart-Basket system for retail supermarket(github)

PUBLICATIONS

Real time ATM Booth suspicious behaviour monitoring system   **Published under Smartcom India 2024 8TH international Conference**

Achievements:

- DAC Scholarship (Semester - 3 , 4 , 5 , 6)
- **KODIKON 2.0 - 3RD PLACE** IN OVER 250+ TEAMS (CSE Hackathon by 7ELEVEN RETAIL (github)
- Winner of Free **AMD hardware at Pervasive AI Developer Contest** (Link)
- Tressure Hunt Winner – 1St Place (IFSCR club)

ACADEMIC / EDUCATION CLUBS

IEEE CS Bangalore Chapter (PES University)

Senior Student Mentor for AI/ML

As a mentor at the IEEE Computer Society Bangalore Chapter, I am currently guiding 3 teams in a research-oriented project under the Open Source Project Initiative (OSPI) program. Our goal is to produce a research paper within a three-month period.

Projects:

- **XAI(Explainable AI) for healthcare:** Developing an Explainable AI framework based on detection and prediction of cardiovascular diseases to enhance transparency of Black-Box ML algorithms
- **Hybrid GAN-VAE for Artistic style transfer :** Designing a novel hybrid GAN-VAE architecture to create artistic style transfer from normal images to pencil sketch, leveraging the VAE's robust latent representations and the GAN's capacity to refine outputs.

Assistantship

Teaching Assistant – Machine Learning Course

- As a Teaching Assistant, I collaborate in the development of educational content and curriculum design for the pre-final year cohort, incorporating lab components to enhance experiential learning, and orchestrate a culminating hackathon event to end the semester with.

Research Assistant - Centre for Data Science and Applied Machine Learning (CDSAML) LABS at PES University

- As a Research assistance , I mentored junior interns through problem-solving with heuristic approaches, assisted them in setting up ML models and architectures, and helped them write and refine research papers, all drawing from my extensive knowledge.

Project Collaboration with Industry mentors :

Intel:

Capstone project (working under Raghavendra Bhat)

- Streamlined retail automation with enhanced theft detection techniques and fast checkout. Integrated cutting-edge computer vision techniques with machine learning modules to achieve high-level automation, ensuring both customer safety and retailer security.

Synopsis:

In collaboration with CDSAML Labs (worked with Dr. Nachiketh SSS)

- The AI-Assisted Speech Translation and Transliteration Module processes audio inputs, enhancing and denoising them before converting spoken Kannada into text with accurate speech recognition models. The text is then checked for spelling, grammar, and punctuation, translated into English, and refined to ensure high-quality, readable output. This system leverages advanced AI models to deliver precise and contextually appropriate translations efficiently.

Mindset Systems:

In collaboration with CIE where (working under Prasanna Chandran & Gurumurthy)

- Enhanced security and operational efficiency through advanced video analytics. Developing a computer vision prototype for real-time tracking and summarization of individuals using CCTV footage. Engineered an integrated system for facial recognition and unauthorized personnel alert mechanism.