HARISH PARTHASARATHY

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EDUCATION

SRM Institute of Science and Technology   Chennai, India
B.Tech Computer Science and Engineering with honors in Financial Technologies   Aug 2023 - May 2027
Grade – CGPA: 8.74/10.0
Relevant Courses: Object Oriented Programming, Data Structures & Algorithms, Operating Systems, Database Management Systems, Computer Networks, Compiler Design & Automata, Software Engineering, Artificial Intelligence, Machine Learning, Data Science, Data Analytics, NLP, CV, GenAI, LLM, IoT, Cloud Computing, Blockchain, Metaverse

Velammal Vidhyashram Surapet (CBSE)   Chennai, India
High School   Mar 2011 - May 2023
Grade – 12th: 84.6% & 10th: 95.2%
Relevant Courses: Computer Science, Mathematics, Physics, Chemistry, English

SKILLS

Programming Languages: C, C++, Python, Java, R, HTML5, CSS3, JS, TS, Bash, SQL, MongoDB, PHP, .Net, C#, Dart
Frameworks and Libraries: React JS, Node JS, Express JS, Next JS, Java Swing & Awt, Spring Boot, Apache Maven, Conda, Django, Flask, Fast API, Tkinter, PyQt, Streamlit, Pygame, Pymavlink, Qiskit, Pandas, NumPy, Scikit-Learn, Matplotlib, Seaborn, PyTorch, TensorFlow, Keras, Langchain, NLTK, OpenCV, PyScrapy, Spacy, CausalML, PyWhy, GraphQL, PyCUDA
Devops and Cloud Tools: Git and Github, Circle CI, Jenkins, Docker, Kubernetes, AWS, GCP, Azure
Others: Matlab, ArchGIS, PowerBI, Tableau, Advance Excel, Arduino, Flutter, Unity, Blender, Figma, AutoCAD

EXPERIENCE

Samsung R&D Institute, Bengaluru   Bangalore, India
Research & Development Intern   Feb 2025 – Present

Samsung PRISM: Advanced Research Group
Worklet: Design and Implementation of Activation Aware Singular Value Decomposition (ASVD) Algorithms for Optimal Tensorization of Large Language Models (LLMs)

University of Europe for Applied Sciences   Dubai, UAE
Research Intern   Feb 2025 – Present

Developing carbon sequestration models to assess the carbon storage potential of UAE mangroves, contributing to the Net Zero 2050 strategy. Working under a Professor from the University of Europe, utilizing predictive modelling and geospatial analysis to quantify the CO_2 reduction impact of mangrove restoration, integrating environmental science with data-driven analytics for sustainability research.

Indian Railways, Govt. of India   Chennai, India
Project Intern   Oct 2024 – Present

Developing a Web-based Audit Compilation System for the Southern Railways Accounts Dept. using MERN stack.

SRM – QUANTUM COMPUTING CLUB (SQCC)   Chennai, India
Technical Member – Quantum Developer   Sept 2024 – Present

Led R&D efforts in Quantum Graphical Neural Networks (QGNN), Quantum Machine Learning (QML), Quantum Neural Networks (QNN), Quantum Cryptography (QCG), and Quantum NLP (QNLP) using lambeq. Developed Quantum Support Vector Machines (QSVM) and advanced quantum models with IBM Quantum, contributing to innovations in quantum AI, security, and computational intelligence.
Organized and led key tech events, including Quantathon 2.0 (36hrs Quantum Hackathon), National Level Seminar on Quantum Cryptography & Secure Communication and a 2 Day Conclave on Quantum Computing and its Application.

Uptor – LMES Academy Pvt Ltd   Chennai, India
Software Developer Intern   May 2024 - Aug 2024

Developed and deployed a Full-Stack Learning Management System (LMS) with features like course management, user tracking, content delivery, assessments, and subscription handling. Built the frontend using React, backend with Node.js & Express, and integrated MongoDB and PostgreSQL for data management. Implemented Firebase Authentication for secure user access and deployed the system on AWS for scalability. Designed an intuitive UI/UX in Figma, ensuring a seamless user experience while optimizing system performance.

Kryptos Info Systems Pvt Ltd   Chennai, India
Web Developer Intern   Jun 2024 - Jul 2024

Worked as a Frontend Developer in a 4-week Web Development Internship, contributing to the development of a Consultancy Events Planning Suite using HTML, CSS, JavaScript, and React. Designed responsive UI components, optimized performance, and ensured cross-browser compatibility. Collaborated with backend developers for seamless API integration, enhancing user experience and application scalability.

RESEARCH WORKS, PUBLICATIONS AND PATENT

- **Innovation Waste Management System Using Geospatial Analytics**
  Presented at International Conference on Advancing Sustainable Future (ICASF)'24 at Abu Dhabi, UAE
- **Submarine Obstacle Detection and Environmental Monitoring System**
  Presented at International Conference on Advancing Sustainable Future (ICASF)'24 at Abu Dhabi, UAE
- **Intelligent Parking Space Allocation System with License Plate Number Recognition**
  Presented at International Conference on Advancing Sustainable Future (ICASF)'24 at Abu Dhabi, UAE
- **Efficient Sepsis Prediction Using Auto-ML: A Comparative Analysis of Models and Features**
- **Optimizing Generative AI for Large-Scale Software Testing: Overcoming Computational and Execution Time Challenges** (Ongoing)

PROJECTS

1. **CareConnect:** An AI-Powered Post-Discharge Care with computer vision physio assistance, AR/VR rehab, and a chatbot for healthcare and medical support. It includes medicine reminders, a Care Ring for SOS alerts, and seamless patient-doctor-hospital connectivity.
2. **FemGuard:** An Intelligent and Secured mobile app designed to enhance women's safety. It features a blockchain-powered complaint portal, safe zone-based travel recommendations, live tracking with an SOS alert system using a smart ring, and a chatbot for mental support during distress.
3. **HarvestHub:** Advanced Smart Farming Assistant to revolutionize Agriculture.
4. **AttendEase:** Cloud based attendance tracking platform with advanced computer vision technology, ensuring seamless and accurate student attendance through facial recognition.
5. **SteerShield:** A Road safety vehicle detection system which enhances bike driver's safety by identifying helmet and enforcing compliance through automatic number plate recognition and penalty registration using CNN.
6. **VentySync:** Digi-Twin for ICU Ventilator Control System which gives real-time monitoring with IoT integration.
7. **EquiStox:** A stock market management & prediction system that analyses historical data and predict future stock prices, empowering investors with valuable insights for informed decision-making.
8. **Cymbal Air's SFO Airport AI Assistant – SV2** (Build at Google Office, Bagmane Tech Park, Bangalore, India)

COURSES AND CERTIFICATIONS

1. Harvard CS50x, Edx
2. IBM – Full Stack Software Developer (Professional Certificate), Coursera
3. Stanford Online – Machine Learning Specialization, Coursera
4. Stanford Online – Algorithms Specialization, Coursera
5. Microsoft – Azure AI Fundamentals AI-900 (Professional Certificate), Coursera
6. DeepLearning.AI – Mathematics for Machine Learning and Data Science Specialization, Coursera
7. DeepLearning.AI – Deep Learning Specialization, Coursera
8. Duke University – MLOps and LLMOps Specialization, Coursera
9. University of Pennsylvania – Computational Thinking for Problem Solving, Coursera
10. Wharton Online - University of Pennsylvania – Fintech Foundations and Applications, Coursera
11. University of London – Object Oriented Programming in C++, Coursera
12. University of Michigan – Data Science in Python, Coursera
13. University of Michigan – Python Data Structures, Coursera
14. Johns Hopkins University – GPU Programming, Coursera
15. Meta – Introduction to Data Analytics, Coursera
16. AWS Cloud Practitioner Essentials, AWS Academy
17. Oracle Cloud Infrastructure Foundations Associate, Oracle University
18. MongoDB Python Developer Associate, MongoDB University
19. Programming in Java, NPTEL
20. Database Systems, NPTEL
21. The Complete C Language, Udemy
22. Python Programming Fundamentals, Udemy

HONORS, AWARDS AND ACHIEVEMENTS

1. Won the 1st Place for the Best Business Idea at AGAM 8.0 (International Management Fest held at SRM – FOM)
2. Best Project Displayed Tech-Know 2023-24 Intra-College Technical Event (Semi-Conductor Expo)
3. Awarded as a Top Performer in SRM-eLab for completing 100 Problem Solving Challenges with 50hrs of Intense Coding Practice as a part of EPICS Program under Purdue University, IN, USA
4. Honored for Mastery in Drone Building from SP Robotic Works

HACKATHONS AND CODING CONTESTS

1. Hack-A-Tank 2.0, SRMVEC, Chennai – 2025 (Finalist)
2. Smart India Hackathon (SIH), SRMIST, Chennai – 2024
3. Oracle Apex Hackathon – 2024
4. Medithon, VIT, Chennai – 2024 (Finalist)
5. HackO'Holics, St. Joseph Institute of Technology, Chennai – 2024 (Finalist)
6. HackOdissey, Kalasalingam University – 2024 (4th Place)
7. Hack2TechSustain, MIT, Chennai – 2024
8. Redbull Basement Hackathon, SRMIST, Chennai – 2024 (Finalist)

CODECHEF:
- Data Structures and Algorithms in C
- Operating Systems Skill Test
- Java Online Test and Quiz
- C language Online Test

HACKERANK:
- Problem Solving – Gold Level
- Python – Gold Level
- C++ – Gold Level
- Linux Shell – Silver Level

LEETCODE:
- Top Interview 150 (27/150 Solved)

CO-CURRICULAR ACTIVITIES

1. Google Cloud Arcade Facilitator 2025 (Feb-July), Credly Badges
2. Unity Essentials, Credly Badge
3. Introduction to Data Science from CISCO, Credly Badge
4. Google AI/ML Virtual Internship, Eduskills, AICTE
5. AWS AI/ML & Cloud Virtual Internship, Eduskills, AICTE
6. Python Full Stack Developer Virtual Internship, AICTE
7. Software Engineering Virtual Experience Program – JP Morgan Chase & Co, Forage
8. Cloud Platform Virtual Experience Program – Verizon, Forage
9. Advanced Software Engineering Virtual Experience Program – Walmart Global Tech, Forage
10. Analytics and Visualization Experience Program – Accenture, Forage
11. Machine Learning Pipelines with Azure ML Studio, Coursera Project Network
12. Database Operations in MariaDB using Python from Infosys , Coursera Project Network
13. Open Source Models with Hugging Face, DeepLearning.AI
14. Langchain for LLM Application Development, DeepLearning.AI
15. Machine Learning Virtual Internship, Cognifyz Technologies
16. UI/UX Virtual Internship, Big-Bucks-Innovation Pvt Ltd
17. Advanced-Excel Certification Accredited by IITM – Internshala Trainings
18. AI Data Analyst Virtual Internship at Excelerate (Powered by RIT, USA)

EXTRA-CURRICULAR ACTIVITIES

Volunteering
- IEEE – Institute of Electrical and Electronics Engineers, Computer Society, SRMIST
- IEI – The Institution of Engineers (India), Professional Body, SRMIST
- DSA – Directorate of Student Affairs, SRMIST
- NSS – National Service Scheme, SRMIST

Responsibilities
- Founder & CAO at PulseUp, Digital Marketing & Personal Branding Startup, Approved by MSME & Startup-India
- Students' Representative, SRMIST