Atharva Kulkarni

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Education

Vellore Institute of Technology **2021-2025**
Electronics and Computer Engineering ***CGPA: 9.27*** *Chennai, Tamil Nadu*

ASM CSIT **2021**
12th Grade, MSBSHSE ***Percentage: 88.5*** *Pune, Maharashtra*

St. Ursula High School **2019**
10th Grade, MSBSHSE ***Percentage: 92.2*** *Pune, Maharashtra*

Skills

Programming Languages:	C/C++, Java, R, Python
Tools:	AWS Management Console, Git, GitHub, Visual Studio Code, Jupyter Notebook, Excel
AWS Services:	Lambda, S3, Redshift, SNS, SQS, IAM, Bedrock
Web Development:	HTML5, CSS, JavaScript
Database Technologies:	MySQL, PL/SQL

Certifications

- **AWS Certified Solutions Architect - Associate (SAA-C03)** | (Link)
- **AWS Certified Cloud Practitioner (CLF-C02)** | (Link)

Experience

Smart Healthcare Research Internship **June 2023 – August 2023**
Research Intern *Vellore Institute of Technology, Chennai*

- Optimized and implemented a CNN for ECG arrhythmia classification, enhancing model performance at CHAIR, VIT.
- Preprocessed large-scale ECG datasets to ensure high data integrity and model accuracy.

Projects

ML Interrelationship Study - Menopausal factors | *Python, Google Colab* | (Link) **October 2024**

- Developed a ML model using real-time clinical data to predict the severity of demographic and diagnostic factors affecting menopause into 3 levels - mild, moderate, severe.
- Achieved 98.51% test accuracy with MI Score + Random forest.
- **Features:** Real-time dataset, 4 ML classifiers (Random Forest, XGBoost, SVM, KNN), 4 feature extraction methods (MI Score, F-statistics, Correlation, Chi-squared test)

Prompt2Post - AI Blog Generator | *AWS: API Gateway, Lambda, Bedrock, S3, CloudWatch* | (Link) **September 2024**

- Architected an AI-driven blog generator that autonomously synthesizes content based on user input, utilizing a microservices architecture with AWS services.
- Employed serverless computing with AWS Lambda and Bedrock - optimizing scalability and resource efficiency, reducing costs upto 50%.
- **Features:** Blog generation via Llama 3 models, Amazon S3 scalable storage, robust monitoring via AWS CloudWatch

Carobot: Elderly Care-giving Robot | *ESP8266, Embedded C, Arduino IDE, JavaScript* | (Link) **April 2024**

- Engineered a prototype aimed at assisting elderly and differently-abled users using ESP8266 and Arduino IDE.
- Programmed firmware in Embedded C and created a responsive web interface to enhance user interaction.
- **Features:** Automated medication dispensing, hands-free water dispensing mechanism, user-friendly web interface for seamless control

Analytics of COVID-19 Vaccines | *RMarkdown, SQL, CSS, HTML* | (Link) **June 2023**

- Comprehensive statistical analysis of COVID-19 vaccination data from the top 10 most afflicted countries.
- Generated actionable insights into vaccine effectiveness across different countries by analyzing diverse parameters using R and SQL.
- **Features:** Qualitative data analysis, vaccine side-effect assessment, and data-driven recommendations for vaccine selection.

Extracurricular/Achievements

- Secured **1st position** at Netsim Hackathon organized in VIT Chennai.
- Secured **Top 1%** in NPTEL Course *Speaking Effectively* (January-March 2024 Session).
- **5 stars** in C and C++ in HackerRank.
- Member: Zero Bugs Club - VIT Chennai (2023-24)