ALEX VARGHESE

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SKILLS & INTERESTS

- **Technical Skills:** Python, C++, C, Java, PHP, MySQL, MongoDB, NumPy, Pandas, Matplotlib, React, JavaScript, FastAPI
- **Soft Skills:** Leadership, Communication, Critical Thinking, Decision Making, Problem Solving, Mentoring
- **Interests:** System Design, Machine Learning, Data Analysis, Prompt Engineering

EDUCATION

- **Govt. Model Engineering College** 2026
  KTU, B.Tech in Computer Science Engineering *9.3*
- **Naipunnya Public School** 2022
  CBSE, 12th *97.6%*
- **Naipunnya Public School** 2020
  CBSE, 10th *98%*

PROJECTS

- **Math-Solver** ***Team Size: 4***
  Software Developer *3 Weeks*
  Technologies Used: *Flask, Google Vision API, SymPy, HTML, CSS, JavaScript*
  Developed core modules for image processing, mathematical computation and frontend workflows. Integrated Google Vision API for text extraction, utilised SymPy for automated solving and built the image upload to results UI flow.

- **Streamify** ***Team Size: 2***
  Software Engineer *3 Weeks*
  Technologies Used: *JavaScript, MongoDB, Stream Chat API, React, Tailwind CSS, DaisyUI, TanStack Query, Render*
  Led backend development for Streamify, a real-time video chat platform, integrating Stream Chat API and MongoDB to enable seamless messaging, video calls and robust data management. Deployed the application on Render and contributed to the React frontend to enhance user experience.

- **Spectrum** ***Team Size: 1***
  Full-Stack Developer *2 Weeks*
  Technologies Used: *Python, FastAPI, spaCy, Firebase, React, Tailwind CSS, JavaScript*
  Developed a resume analysis platform using spaCy for natural language processing to parse resumes, extract key information and calculate compatibility scores against job descriptions, providing users with match percentages and targeted recommendations for resume optimisation.

- **Synapse** ***Team Size: 1***
  ML Engineer *2 Weeks*
  Technologies Used: *Python, Flask, Jupyter Notebook, Scikit-learn, Pandas, NumPy, Matplotlib, Seaborn*
  Built a stroke risk prediction model using Logistic Regression on an imbalanced healthcare dataset, achieving 85% accuracy and 0.82 AUC-ROC score. Performed exploratory data analysis to identify key risk factors, applied SMOTE to address class imbalance in positive cases and evaluated multiple classification algorithms for optimal performance. Developed a Flask web interface for real-time risk assessment.

COURSES & CERTIFICATIONS

- Obtained Proficiency in **Python AI and ML** provided by **Srishti Innovative**.
- Successfully Completed a course on **Data Analysis using Microsoft Excel** provided by **Coursera**.
- Achieved certification in **Microsoft Copilot for Productivity** provided by **Microsoft and LinkedIn Learning**.
- Completed **NPTEL** certified **Python for Data Science** course, developing proficiency in data analysis, visualization and Python programming.

KEY POSITIONS

- **Training Cell Coordinator**, Govt. Model Engineering College.

ACHIEVEMENTS & ACTIVITIES

- Attended **Technopreneur 2023**, an entrepreneurial summit organised by **IEDC MEC**.
- Participated in **MAGIC 2.0 2023**, an overnight hackathon organised by **IEEE MEC SB**.
- Took part in **TEDx MEC 2024**, a talk session conducted by **TEDx MEC**.
- Attended **FinNext 2023**, a finance summit organised by **Excel 2023**, the annual techno-managerial fest of **Govt. Model Engineering College**.
- **Hobbies:** Music, Football, Stamp Collection

REFERENCES

- **Prof. Dr. Mini M G**, Principal, Govt. Model Engineering College, Kochi, Email ID: **principal@mec.ac.in**
- **Prof. Dr. Binu V P**, HOD, Computer Science Engineering, Govt. Model Engineering College, Kochi, Email ID: **binuvp@mec.ac.in**