Caymann Velingkar

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Objective

A passionate and driven software engineer with expertise in Android and Web development, as well as Machine Learning, Deep Learning, and Natural Language Processing. I am committed to creating innovative solutions that blend functionality, AI capabilities, seamless user experiences, and adheres to security frameworks. As an eager learner, I am excited to contribute to a dynamic team where I can grow both personally and professionally, delivering impactful software solutions that leverage AI, data-driven technologies, and secure development practices.

Work Experience

OneShield Softwares

Quality Assurance Intern   *Jul 2023 - Sep 2023*

- Implemented the *Cucumber framework* for *behavior-driven development (BDD)*, enhancing collaboration across a team of 16 by providing clear and structured test definitions, streamlining communication and development processes.
- Automated over 25 test cases using *Gherkin syntax*, ensuring comprehensive coverage of core functionalities in the OneShield Market Solutions product, improving testing accuracy.
- Utilized *Selenium* with *Java* to automate over 100 browser tasks, including complex scenarios such as insurance policy search, updates, and creation, significantly reducing manual testing time by 80%.
- Refactored over 15 existing scripts and test cases, enhancing repository efficiency and performance.
- Executed detailed tests to validate over 50 mandatory fields during quote creation, ensuring accurate data capture and reducing data entry errors.

Projects

Gamified Auditory Training for Hearing Rehabilitation | Link ↗   *Dec 2024*

- Created a gamified auditory training app with over 5 interactive games to enhance speech-in-noise, rhythm, reaction time, auditory memory, and 3D sound localization, significantly boosting auditory training outcomes.

Breast Cancer Detection Model   *Nov 2024*

- Conducted *EDA* and *feature engineering* to preprocess data for model training, enhancing prediction accuracy.
- Built a *supervised machine learning* model for breast cancer detection, achieving an accuracy of 92.9% using *Python* and *Scikit-learn*.

Chess Game   *Oct 2024*

- Constructed a real-time multiplayer chess game with *Node.js* and *Express.js*, adhering to standard chess logic rules.
- Applied *Socket.io* for seamless communication, achieving minimal latency (<100ms), and boosting user engagement through live match spectating.

Vocab   *Aug 2024*

- Engineered a user-friendly dictionary app with *API-powered* word enrichment using *Flutter* and *Firebase*, enabling flexible search, sorting options, and full *CRUD* operations, along with a favorites feature for personalized user experience.
- Crafted and integrated interactive word games, improving user interaction by providing engaging features.
- Facilitated seamless word sharing through WhatsApp integration and collaborative word input, enhancing accessibility and usability for users, resulting in over a 100% increase in engagement.

Real-Time 3D Audio Generation Project   *2023-2024*

- Developed a mobile application using *Flutter* for real-time 3D audio interaction, enhancing users' spatial perception through dynamic audio positioning.
- Simulated spatial audio experiences by creating a virtual room, enabling accurate sound source positioning within the simulated space.
- Incorporated head pose estimation using *OpenCV* and *Mediapipe* to accurately detect user orientation, improving audio localization by 92%.
- Managed efficiency by developing a custom dashboard for data visualization using *Firebase* authentication and storage services, boosting data accessibility and management efficiency.
- Integrated *REST API* for seamless communication between the user-facing app and the backend, ensuring real-time audio processing with minimal latency (<100ms).
- Synthesized binaural audio generation techniques using *PyRoomAcoustic* and *Librosa* to create spatial depth, delivering an immersive audio experience that significantly improved user engagement.

Core Skills

- **Programming Languages:** Python, C++, PHP
- **Frameworks:** Flutter, MERN (MongoDB, Express.js, React, Node.js), FastAPI, Flask
- **Security Control Frameworks:** OWASP Top 10, NIST CSF (2.0), ISO 27001

- **Database Management:** MySQL, SQLite3, NoSQL, Firebase
- **Data Analytics:** Pandas, Numpy, Matplotlib, Seaborn, Feature Engineering, EDA, Statistical Analysis
- **Machine Learning:** Supervised ML, Unsupervised ML, Deep Learning, NLP
- **Tools:** Git, Jira, Docker, Selenium, Canva, LaTeX, Langchain
- **Others:** Rest API, Linux, Windows

Education

Bachelor of Computer Engineering *2020 – 2024*
Goa Engineering College *CGPA: 8.92*
Related Coursework: Data Structures and Algorithms, Object-Oriented Programming, Artificial Intelligence, Image Processing, Operating Systems Architecture, IoT, Genetic Algorithms, Engineering Mathematics.

Certifications

Generative AI with Langchain and Huggingface | *Ongoing* *Expected Completion: 31st January 2025*
- Learnt to build and deploy generative AI applications using *Langchain* and *Huggingface*, including custom model integration and fine-tuning.
- Developed RAG pipelines for enhanced performance and integrate retrieval systems for improved AI accuracy.
- Hands-on projects and real-world applications such as chatbots, content generators, and data augmentation.

Machine Learning | *Oxford University* ⬈ *9th Dec 2024*
- Participated in a 1-day workshop to refresh and strengthen knowledge of essential machine learning concepts, including regression, classification, clustering, and model optimization techniques.

Data Science Bootcamp | *Udemy* ⬈ *Nov 2024*
- Demonstrated expertise in data analysis, machine learning, and advanced Python programming.
- Experienced with tools like *Sqlite3*, *Flask*, and *Streamlit*.
- Implemented *Supervised* and *Unsupervised ML*, *Deep Learning* models, and *NLP* techniques.
- Streamlined development with *Docker* and *MLOps* for consistent environments.

Data Analytics | *Udemy* ⬈ *Oct 2024*
- Leveraged *Pandas*, *Numpy*, *Matplotlib*, and *Seaborn* for efficient data manipulation and visualization.
- Collected and analyzed large datasets using APIs and web scraping.
- Conducted *Data Preprocessing*, *Statistical Analysis*, and *EDA* to derive actionable insights.

Computing in Python | *NPTEL Swayam* ⬈ *Jul 2022*
- Secured a position in the top 1% nationally with a 93% score in the Python exam.

Achievements

- **Music Technology Hackathon:** Queen Mary University of London: *3rd Place* 2024
- **Hackathon:** Indian Institute of Technology Goa - Cepheus: *1st Place* 2023
- **Competitive Coding Competitions:** Information Technology Goa Engineering College: *1st Place* | Retrieval Sages (Code with Puzzle): *1st Place* | Techtwister (RIT): *2nd Place* 2023-2024

Activities and Leadership

Workshops | *London* 2024
- Attended the **UCL Computational Cancer Collaboratorium** to explore computational models in cancer research.
- Participated in the **DApp in a Day Workshop** to learn decentralized application development and its real-world applications.

Magazine Secretary | *Cursor Council* 2023
- Tailored an interactive college department magazine with a companion app that scanned pages for clues and updates, engaging readers with treasure hunts and puzzles while boosting user engagement and publication visibility.

Technix 2023 | *India* 2023
- Assisted in organizing and hosting the technical event, supporting technical and logistical coordination for a successful outcome.

Soft Skills

- Excellent problem-solving abilities, with a focus on optimizing processes through effective time management and task prioritization.
- Strong analytical skills, highly adaptable, and proactive in identifying opportunities for improvement.
- Proficient in English, Hindi, and Konkani.