# 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 adherence 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 and 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 and improving testing accuracy.
- Utilized *Selenium* with *Java* to automate over 100 browser tasks, including complex scenarios such as insurance policy search, updates, and creation, 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 | Link

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 | Link

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 | Link

 $Auq \ 2024$ 

- 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 | Link

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, achieving a 92% improvement in audio localization.
- 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 Ten, NIST CSF (2.0), ISO/IEC 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's Degree in 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*, covering 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 ✓

9<sup>th</sup> 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.
- $\bullet$  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: 1<sup>st</sup> Place | Retrieval Sages (Code with Puzzle): 1<sup>st</sup> Place | Techtwister (RIT): 2<sup>nd</sup> 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.

# ${\bf Magazine~Secretary}~|~{\it Cursor~Council}$

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 thus 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.