

MOHIT SAMANT

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EDUCATION

K. J. Somaiya Institute of Technology

Mumbai, India

B.Tech in Computer Engineering — CGPA: 9.71 / 10

2025 – 2029

PROJECTS

VocalNotes | *Swift 6, SwiftUI, PDFKit, Vision, SwiftData, AVFoundation*

Jul – Aug 2026

- Developed a PDF dictation application that segments documents into clauses and paces playback against the user's measured handwriting speed.
- Implemented a calibration routine deriving writing speed in characters per second from three timed trials, discarding outliers and correcting for input latency.
- Delivered a single SwiftUI target to iPhone, iPad and macOS under Swift 6 strict concurrency, with on-device OCR and text processing and a cached cloud speech layer with offline fallback.

Placed | *SwiftUI, Metal, FastAPI, Python, SQLAlchemy, Whisper, Docker*

Jul – Aug 2026

- Developed a placement-preparation platform providing 85 quizzes on pass-to-unlock progression and company-wise DSA sets covering 38 recruiters.
- Built a voice-based mock interview module using 16 kHz capture, server-side Whisper transcription and model-generated follow-up questions.
- Implemented the FastAPI and SQLAlchemy backend with JWT authentication and server-side OAuth brokering, containerised and deployed on Fly.io.

ASCIIFY | *Swift, CoreGraphics, ImageIO, PhotosUI, XCUITest*

Aug 2026

- Developed an image-to-ASCII conversion tool with a UIKit-independent engine, allowing the same source to compile as a macOS command-line tool for automated quality testing.
- Implemented the conversion pipeline: EXIF-aware decoding, border trimming, cell-aware resampling and Rec. 709 luminance mapping with tonal-range normalisation.
- Added dual-format clipboard and PNG export, with UI test coverage across the picker and export paths.

TECHNICAL SKILLS

Languages: Swift, Python, C, SQL, LaTeX

Apple Platforms: SwiftUI, Swift Concurrency, SwiftData, PDFKit, Vision, AVFoundation, CoreGraphics, Metal, Mac Catalyst, XCTest / XCUITest

Backend: FastAPI, SQLAlchemy, SQLite, REST APIs, JWT & OAuth, Docker, Fly.io

Machine Learning: scikit-learn, pandas, NumPy, Matplotlib; supervised learning — logistic regression, decision trees, random forests, gradient boosting, SVMs; feature engineering, k-fold cross-validation, hyperparameter tuning, class imbalance

Model Evaluation: precision / recall, F1, ROC-AUC, confusion matrices, overfitting and data-leakage diagnosis

Tools: Git, GitHub Actions, Xcode, XcodeGen, ffmpeg

ACHIEVEMENTS

LeetCode Contest Rating: 1733

LeetCode Problems Solved: 340+

MAH BBA CET: 99.73 percentile