Atharv Choughule

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Objective

I am a recent B.E. Computer Science and Engineering graduate with experience in both iOS development and machine learning. I'm passionate about bringing ideas to life through intuitive, well-crafted mobile applications. I believe in solving modern problems in efficient, minimalistic ways striving for simplicity without sacrificing depth. While I avoid unnecessary complexity, I enjoy tackling challenging problems with creative and practical solutions. Known for being adaptable, resourceful, and a strong team player, I also take initiative and enjoy stepping into leadership roles when needed.

Skills

iOS Development: Swift, SwiftUI, UIKit, MVVM, Animations, REST APIs, Multipeer Connectivity, Core Data
Programming & Tools: Objective-C, Python, JavaScript, React, Git, Unix/Linux, Xcode
Design: Figma, Wireframing, Prototyping, UX Research
AI/ML: Machine Learning, Scikit-learn, NumPy, Deep Learning

Education

B.E. in Computer Science and Engineering 2021–2025
SIES Graduate School of Technology, University of Mumbai **CGPA:** 8.14 / 10

Projects

- **Render Monitor** : **App Store Link**
  Technologies Used : Swift, SwiftUI, FireBase, RevenueCat SDK, Apple In App Purchases, Blender
  An App that unable Blender user track the liver render status and preview their current frame from their iOS device or Ipad devices from wherever and whenever they want. Currently an add-on sends data from blender to firebase which stores the data as well as aids the authentication at various point, I have custom backed which is running on cloud Run, and in App purchases are handled by RevenueCat.
- **ChatOverAir** : **GitHub Link / Test Flight**
  Technolgies Used : Swift, SwiftUI, MultipeerConnectivity, Combine
  Developed at a hackathon, ChAir is a local ephemeral chat app enabling private peer-to-peer rooms. Built with a reactive UI using Combine and real-time communication via MultipeerConnectivity. Ensures privacy with automatic message clearing.
- **Detection of AI-Generated Marathi Audio** : **Publication Link**
  Technologies Used : Python, TensorFlow, Librosa, CNN, Mel-spectrograms
  Built a CNN-based deep learning system to classify human vs. AI-generated Marathi speech using Mel-spectrogram analysis. Led dataset creation of 28k+ audio clips, feature extraction, model design, and Gradio-based interactive deployment. Achieved 99.68% classification accuracy; project addresses regional language deepfake detection gaps.
- **Defake Video Detection Using Multimodal Approach** : **Publication Link**
  Technologies Used : Python, BERT, FER, OpenCV, SpeechRecognition, CNN
  Developed a deepfake detection system combining facial emotion recognition (FER) and audio sentiment analysis using a BERT-based model. Implemented multimodal pipeline to identify mismatches between visual and auditory emotions across video segments. Achieved 85.50% accuracy by flagging emotional inconsistencies, demonstrating robustness against sophisticated deepfake manipulations.
- **VRET for Hydrophobia** : **Publication Link**
  Technologies Used : Blender, Unity, VR Simulation
  Co-authored a book chapter exploring virtual reality exposure therapy (VRET) to treat hydrophobia using immersive 3D environments. Designed interactive water-based VR scenarios in Blender and Unity to simulate graded exposure experiences. Published in "Intelligent Solutions for Cognitive Disorders"; focused on therapy flow, patient safety, and technical architecture.

Certifications

Meta iOS Developer Professional Certificate Jul 2025
Machine Learning By Stanford University Jul 2024

Achievements & Publications

- Finalist, IndeHub Hackathon
- Published 3 research works (IEEE Xplore, Springer LCNS, IGI Global)
- President, Rotaract Club SIES GST (2024–2025)
- Winner, Cognition Technical Competition (3 years)
- Member, Google Developer Student Clubs (2022–2024)