

Rishi Chhabra

+1 (201) 423-8684 | Rishi.chhabra@outlook.com | [linkedin.com/in/rchhabra1](https://www.linkedin.com/in/rchhabra1) | rishichhabra.com | Jersey City, NJ

PROFESSIONAL SUMMARY

Full Stack Developer ML Engineer with 2+ years' experience in Flutter, Node.js AWS. Specialized in AI-driven facial recognition emotion detection. Skilled in mobile-optimized neural networks serverless cloud architectures.

EDUCATION

Stevens Institute of Technology

Master of Science in Machine Learning

Hoboken, NJ

Sep 2024 – Present

Central University of Haryana

Bachelor of Technology in Computer Science, GPA: 3.66

Mahendragarh, India

Sep 2020 – May 2024

TECHNICAL SKILLS

Languages: Python (NumPy, Pandas), Java, C++, JavaScript/TypeScript, Dart, SQL, R

Machine Learning: TensorFlow, PyTorch, Scikit-learn, Keras, OpenCV, NLTK, Facial Recognition

Development: Flutter, React.js, Node.js, Express.js, RESTful APIs, GraphQL, Flask, Django

Cloud & DevOps: AWS (Lambda, EC2, S3, DynamoDB, Rekognition), Docker, Kubernetes, CI/CD

Databases: MongoDB, PostgreSQL, MySQL, Firebase

PROFESSIONAL EXPERIENCE

SparkSpite

Full Stack Developer

Mar 2024 – Aug 2024

Noida, India

- Led development with Git version control, Jest unit testing, and CI/CD pipelines for production deployment
- Built Flutter/Node.js mobile app with AWS EC2, Route 53, SNS notifications, and DynamoDB backend

Incuwise

Senior Flutter Developer

Feb 2024 – Aug 2024

Noida, India

- Developed 4 cross-platform apps using Flutter and Node.js, migrating from Linode to AWS infrastructure
- Implemented Firebase notifications, Google Maps integration, Stripe payments, and OAuth authentication

KEY PROJECTS

Multimodal Facial Landmark Detection

2025

- Architected dual-input CNN using ResNet50 backbone processing RGB images and depth maps simultaneously for high-precision 3D facial modeling
- Achieved sub-millimeter accuracy for 68 facial landmarks by training on 50,000+ annotated images using transfer learning techniques
- Optimized TensorFlow Lite model with post-training quantization reducing model size by 75% and inference time by 70% on mobile devices

Real-time Emotion Detection – PyTorch/Flutter

2025

- Engineered emotion recognition system detecting 7 emotions (happy, sad, angry, surprised, disgusted, fearful, neutral) with 92% accuracy
- Implemented custom MobileNetV3-based CNN architecture with attention mechanism, trained on FER2013 and AffectNet datasets
- Deployed with AWS Elastic Beanstalk auto-scaling handling 1000+ concurrent users with Redis-backed real-time analytics dashboard

Advanced Facial Recognition System – Flutter/AWS

2025

- Developed Flutter-based facial authentication app with liveness detection achieving 95% accuracy in varied lighting conditions
- Integrated TensorFlow Lite face embedding model (FaceNet) with triplet loss function for one-shot learning capabilities
- Implemented fully serverless architecture using AWS Lambda for inference, S3 for GDPR-compliant image storage, and DynamoDB for user data