# VAIBHAV ACHUTHANANDA

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## SUMMARY

Master of Science in Computer Science candidate with strong technical aptitude and a collaborative mindset. Experienced in full-stack development, system administration, and artificial intelligence applications. Effective communicator with problem-solving abilities and attention to detail. Adaptable team player passionate about leveraging technology to create innovative solutions for real-world challenges.

#### **EDUCATION**

## Stevens Institute of Technology

Master of Science in Computer Science

Expected: May 2026 GPA: 4.0

Relevant Coursework: Deep Learning, System Administration, Advanced Algorithms, Web Programming

## **Lovely Professional University**

Jun 2023

Bachelor of Technology in Computer Science and Engineering

GPA: 3.3

## TECHNICAL SKILLS

Languages: Python, C++, JavaScript, TypeScript, Swift, Go

Front-End: React, Next.js, Svelte, SvelteKit, Tailwind CSS, Three.js, Redux

Back-End: Node.js, Express, REST APIs, GraphQL, Microservices

Data & ML: TensorFlow, PyTorch, scikit-learn, Keras, NumPy, Pandas, CNN, SVD

Databases: MongoDB, MySQL, PostgreSQL, Firebase, Redis

DevOps & Tools: Docker, Git, CI/CD, AWS, Google Cloud, Linux, Bash

## **PROFESSIONAL EXPERIENCE**

#### **Mohit Mokal Mediation**

Jan 2024 - Aug 2024

Bengaluru, India

Software Engineering Consultant

- Architected and implemented a scalable web application using React, Next.js, and Tailwind CSS that handled 15K+ concurrent users, reducing page load time by 75% and increasing conversion rate by 40%
- Designed a microservices-based API architecture with Node.js, implementing automated testing with Jest that increased code coverage to 92% and reduced deployment bugs by 80%
- Engineered a content management system leveraging the Blogger API, Firebase, and custom webhooks that automated updates and increased content freshness metrics by 65%

BSides Indore Jun 2023 – Jul 2023

Technical Product Consultant

Indore, India

- Led system architecture redesign initiative, conducting performance profiling and requirement analysis that identified 7 critical bottlenecks and improved overall throughput by 200%
- Implemented advanced UX testing methodology across 30+ user stories, detecting 15 critical accessibility issues while achieving WCAG AA compliance and reducing user error rates by 36%
- Created and managed an agile development framework with 4-day sprint cycles that maintained 100% on-time delivery across 20+ feature releases while reducing development iterations by 65%

## **TECHNICAL PROJECTS**

## **Computer Vision Emotion Recognition System**

Sep 2023 - Dec 2023

- Created a real-time computer vision system using Python and TensorFlow that detects and classifies 7 distinct human emotions with 93% accuracy using a custom-trained CNN architecture with 5 convolutional layers
- Engineered 3D facial representation using Swift with ARKit and ARSCNFaceGeometry to generate 52 facial anchor points, enabling precise emotion tracking even in low-light conditions
- Optimized TensorFlow model for mobile deployment by reducing inference time to under 50ms and memory usage by 75% while maintaining recognition accuracy within 3% of server-based model

## **AWARDS & LEADERSHIP**

- Published research in the proceedings of the 7th International Joint Conference on Computing Sciences (ICCS-2023)
- Top 6 finalist in the All India Capture The Flag (CTF) competition organized by BIT Mesra with over 200 participants
- Operations Lead at Google Developer Student Clubs, mentored 30+ student developers and organized 12 workshops
- University representative at the North Zone Inter-University Chess Championship, reaching quarterfinals