

# Arindam Shiva Tripathi

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## EDUCATION

### University of Maryland (UMD)

Master of Science in Human-Computer Interaction (HCIM)  
• 4.0 GPA

College Park, MD, USA  
Aug 2025 – May 2027 (Expected)

### National University of Singapore (NUS)

Bachelor of Engineering in Computer Engineering, Minor in Business Management  
• Concentration in Interactive Digital Media; graduated with honors

Singapore  
Aug 2019 – Jul 2023

## EXPERIENCE

### L'Oréal

Data Analytics Specialist (Full-Time)

Singapore

Jul 2023 – Aug 2025

- Built ML-backed promotion planning tools used by 200+ planners across APAC, improving efficiency by 24%
- Implemented data validation rules across shared database views to standardize reporting workflows
- Increased system adoption by 40% through iterative feature refinement and usage monitoring

Enterprise Architecture Intern

May 2022 – Sep 2022

- Built Power BI dashboards to monitor enterprise application usage across APAC, reducing data access time by 90%
- Optimized backend data structures, reducing database size by 30% and improving dashboard load times by 20%

### SP Digital

Full Stack Developer Intern

Singapore

Jun 2021 – Dec 2021

- Built and shipped production React/JavaScript features for customer-facing utility workflows
- Refactored shared frontend components to reduce duplication and improve maintainability across the codebase
- Debugged state handling and API request flow issues in an internal Golang portal, resolving production bugs affecting end-to-end transactions

## PROJECTS

### Music & Lyrics Transcription System — Python, React, SpeechBrain, Spleeter

Oct 2022 – Nov 2022

- Built an end-to-end audio transcription system that processes uploaded tracks to extract lyrics and melody
- Integrated SpeechBrain (ASR) and Spleeter (source separation) into a unified asynchronous processing pipeline
- Developed a React frontend to display aligned lyric outputs and model results
- Benchmarked transcription performance using Word Error Rate (WER) and identified degradation under high-tempo inputs

### TrailTales — Local Discovery App — Flutter, Firebase, Google Maps API

May 2020 – Aug 2020

- Designed and built a location-based mobile application for local experience discovery
- Implemented Firebase authentication, structured Firestore data models, and integrated Google Maps APIs with scalable location clustering logic

### ShooT IT — Real-Time Multiplayer System — Unity3D, C#, MQTT

Jan 2022 – May 2022

- Engineered a real-time multiplayer system using MQTT for event synchronization across devices
- Implemented state management logic to maintain gameplay consistency under network latency
- Integrated hardware-triggered haptic feedback with mobile client interactions

## LEADERSHIP

### XR Club — Project Lead (Niantic Spatial AR) — College Park, MD

Mar 2026 – Present

- Led a 3-person team building location-aware AR applications using Unity and Niantic's Spatial SDK
- Implemented geospatial anchor logic and coordinated feature milestones from prototype to working demo

### ECE Undergraduate Student Council — Vice-President — Singapore

Aug 2020 – Aug 2023

- Led planning and execution of the annual ECE Career Fair with 29 industry partners, increasing attendance by 30%
- Coordinated logistics and sponsor outreach across a 10+ member council under shifting event constraints

## CERTIFICATIONS AND SKILLS

**Engineering:** Python, JavaScript, C#, SQL, React, HTML/CSS, REST APIs, Unity3D, MQTT, Power BI

**ML & Data:** PyTorch, scikit-learn, SpeechBrain, OpenAI APIs, Vertex AI, pandas

**Infrastructure & Tools:** Docker, Git, Google Cloud Platform

**Certification:** Google Cloud Certified — Cloud Digital Leader (Dec 2023)