

Aayush Shrestha

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EDUCATION

Morgan State University

B.S. in Computer Science

- GPA: 3.96/4.00, Dean's List

- **ExpandQISE Fund Scholar**, full-year NSF-funded tuition scholarship for academic excellence and AI research contributions

Baltimore, Maryland

Expected Graduation, May 2026

EXPERIENCE

Morgan State University

Undergraduate Research Assistant – AI Agents

[GitHub]

Baltimore, Maryland

Dec 2025 – Present

- Architecting a **multi-agent system** with Google ADK and Vertex AI featuring an **AI tutor**, course planner, and degree audit sub-agents powered by LangChain RAG pipelines on Cloud Functions, automating academic advising for **800+ CS students**
- Replacing the monolithic CS Navigator chatbot backend with a Google ADK agent engine that routes queries to specialized sub-agents, cutting response latency by **80%** and enabling **real-time schedule building** and transcript analysis

Morgan State University

Undergraduate Research Assistant – Conversational AI & Robotics

[GitHub]

Baltimore, Maryland

Jun 2025 – Dec 2025

- Built a **conversational AI system** for the **NAO6** robot using OpenAI, Pinecone RAG, and a custom Python DSP pipeline with voice activity detection for **real-time speech transcription** and response generation
- Implemented **face recognition** for personalized greetings, **session memory** for multi-turn conversations, and sensory detection for context-aware interactions, serving **100+ students** in advising and wellness counseling

Ace Data Cloud

Software Engineering Intern

Remote

May 2024 – Aug 2024

- Built Python/FastAPI API wrappers for AI model integrations with Redis caching, reducing API latency by **20%**; containerized with Docker and deployed to AWS with CI/CD pipelines

PROJECTS

Morgan State University AI Chatbot (CS Navigator)

Lead Developer

[GitHub]

Baltimore, Maryland

2026

- Led a team of 4 building a full-stack **Retrieval-Augmented Generation (RAG)** web app with React 19, FastAPI, LangChain, Pinecone, and OpenAI GPT-3.5 for semantic search over university data
- Deployed on AWS EC2 with RDS MySQL, Docker, and Nginx reverse proxy; **adopted department-wide** at Morgan State [[inavigator.ai](#)]

Gaudon Silicone Sealants

Co-Founder & CTO

[GitHub]

Nov 2025 – Present

- Launched a B2B e-commerce platform using React, Vite, Tailwind CSS, and GSAP, serving **35+ wholesale clients** and **5 distributors** across the U.S. with a smart product finder, comparison tool, and automated quote system [[gaudon.store](#)]
- Automated lead generation with an agentic **skill** scraping **200+ wholesale leads**, sending personalized cold emails via Gmail API with OAuth 2.0, and syncing follow-ups to Google Calendar

Agentic Skills Suite (Open Source)

Creator & Developer

[GitHub]

2025 – 2026

- Created **8 autonomous AI agent skills** (Gmail, Calendar, Lead Gen, Twitter Brief, NotebookLM) powered by MCP protocol, shared Google OAuth 2.0 auth, Gemini API, and Playwright browser automation
- Shipped an **apply-job** skill with **120+ installs** on skills.sh automating end-to-end job applications via Playwright MCP, handling login flows, form filling, resume uploads, and recruiter outreach

AgentX – Autonomous Twitter Agent

Developer

[GitHub]

2025

- Engineered an **autonomous AI agent** using the **ReAct reasoning pattern** with Google Gemini to monitor and respond to Twitter mentions with context-aware replies in real time; deployed on Vercel with Twitter API v2

ACTIVITIES & LEADERSHIP

- **Presenter**, AAAS Annual Meeting 2026 (Phoenix, AZ). Presented research on integrating OpenAI GPT models with **NAO6** robots for real-time conversational AI using Whisper, Pinecone RAG, and gesture synthesis; evaluated by a panel of three judges
- **Speaker**, EdgeCon Winter 2026 (Princeton, NJ). Showcased CS Navigator alongside **Dr. Paul Wang**, Chair of Computer Science at Morgan State University, to industry professionals and higher education technology leaders
- **Selected Presenter**, Amazon AI/ML HBCU Symposium (Arlington, VA, Sept 2025). Delivered Generative AI robotics research to AWS engineers and ML scientists at Amazon HQ2; featured in an AWS [[technical podcast interview](#)] on generative AI and robotics
- **Teaching Assistant**, COSC 220, Data Structures & Algorithms under **Dr. Jin Guo** @MSU. Mentoring 30+ students through weekly office hours, code reviews, and supplementary problem sets

SKILLS

Programming: Python, JavaScript, TypeScript, Java, Kotlin, SQL, R, HTML/CSS

Frameworks & Tools: React, Next.js, Vite, Tailwind CSS, FastAPI, Flask, Node.js, LangChain, PyTorch, Docker, Nginx, Git

Cloud & Databases: AWS (EC2, S3, Lambda, RDS), Google Cloud (Vertex AI, ADK), Pinecone, PostgreSQL, MySQL, MongoDB, Redis

AI/ML & Other: LLMs, RAG Systems, AI Agents, MCP, Claude Code, Vector Databases, NLP, REST APIs, CI/CD, Microservices