

RUDRA AGARWAL

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EDUCATION

University of Maryland - College Park

Bachelor of Science in Computer Science, Concentration in ML, GPA: 3.371/4.00

May 2027

College Park, MD

Certifications

Amazon Web Services - Projected AWS Cloud Practitioner

July 2025

TECHNICAL SKILLS

Languages: Java, Python, Swift, C/C++, JavaScript, HTML/CSS, SQL, Dart (for Flutter)

Frameworks: React, Node.js, Flask, Firebase, SwiftUI, PyTorch, OpenCV

Libraries: Pandas, NumPy, Scikit-learn, FastAPI, Framer Motion, SadTalker, Transformers (HuggingFace)

Developer Tools: Git, GitHub, VS Code, Xcode, Terminal, Postman, Insomnia, Apigee, OpenAI API, AWS, Azure

Databases: Neo4j, Firebase, PostgreSQL, MySQL, , MongoDB

PROFESSIONAL EXPERIENCE

Software Engineering Intern

Mphasis

June 2025 - August 2025

New York, NY

- Transformed documents into a Neo4j knowledge graph using Python for semantic search and relationship mapping
- Built a robust pipeline for metadata tagging, semantic embedding, and CSV generation for Neo4j graph ingestion
- Integrated OpenAI and RAG to enable natural language queries via React UI and Flask API for Cypher generation

Software Engineering Intern

Apollonian.AI

February 2025 – June 2025

Washington D.C.

- Developed responsive web pages using React, JavaScript, HTML/CSS, and integrated Firebase for real-time chat
- Integrated OpenAI and Hugging Face models via RESTful APIs using Postman to power a 24/7 AI psychiatrist
- Prototyped SadTalker for avatar-driven therapy, exploring emotion mapping and lip-sync for digital psychiatry

AI Trainer

Alignerr

February 2025 – June 2025

Fremont, CA

- Educate LLMs by refining AI-generated outputs, providing feedback to improve accuracy and domain relevance
- Guided reasoning by crafting step-by-step solutions to complex prompts, helping the model handle specific topics
- Conducted red-teaming to identify biases and limitations, testing model boundaries to ensure reliability

PROJECTS

AuthGuard | JavaScript, Chrome Extensions, HTML, CSS, Chrome Storage API

June 2025 - June 2025

- Developed an extension to detect suspicious phishing login pages using Levenshtein distance-based algorithm
- Designed an intuitive popup interface and reporting page with HTML, CSS, and JavaScript for domain monitoring
- Implemented user reporting and stored suspicious sites locally using Chrome Storage API for threat awareness

AI EchoMail | Python, React, FastAPI, HuggingFace, PostgreSQL

May 2025 - June 2025

- Integrated GPT-4 via OpenAI API to automatically generate context-aware email drafts from minimal user input
- Engineered a multi-agent moderation pipeline using HuggingFace to optimize tone, clarity, and policy alignment
- Built a full-stack platform with React, FastAPI, and PostgreSQL enabling real-time AI-assisted email writing

Fitness Genius | Swift, HTML/CSS, JavaScript, Xcode, REST APIs

June 2023 - August 2023

- Developed and launched a Swift-based app using Xcode with personalized workouts, reaching 2,000+ downloads
- Integrated haptic feedback, widgets, real-time progress tracking, and REST APIs to enhance user engagement
- Created a responsive promotional website and used Git for version control to showcase features and boost visibility

LEADERSHIP AND COMMUNITY INVOLVEMENT

Merch of Hope | Founder of Non-profit E-commerce

August 2021 - August 2024

- Launched a non-profit e-commerce platform, raising \$2,500 to support the Make-A-Wish Foundation
- Raised awareness at school by selling 75+ custom merchandise, boosting engagement and fundraising
- Created presentations to lead weekly meetings at school and drive successful fundraising initiatives