Varun Warrier

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Education

Georgia Institute of Technology *Atlanta, GA*

Bachelor of Science in Computer Science – Intelligence & Devices Concentration Aug 2023 - May 2027

- Relevant Coursework: Data Structures and Algorithms, Design and Analysis of Algorithms, Objects and Design, Systems and Networks, Computer Organization and Programming, Database Systems, Machine Learning

Experience

Bloomberg *New York, NY*

Software Engineering Intern Jun 2026

- Incoming

Verkada *San Mateo, CA*

Software Engineering Intern Jan 2026 - Present

- Incoming - Access Control Backend

HubSpot *Cambridge, MA*

Software Engineering Intern May 2025 - Aug. 2025

- Architected and launched backend functionality of an AI audio isolation service, utilizing Kafka-driven RPC endpoints, async workers, dynamic audio chunking, and real-time usage tracking and credit-spend limiting
- Automated file-lifecycle hygiene with a worker processing 5000+ messages/day by building cascading-deletion and orphan-prevention pipelines, trimming S3 storage by 4% and eliminating render-chunk errors in production
- Strengthened reliability by designing worker patterns with retry logic that caught 120,000+ previously uncaught exceptions, containerizing FFmpeg workflows in Docker, and broadening acceptance-test coverage

Georgia Tech School of Computing Instruction *Atlanta, GA*

Undergraduate Teaching Assistant Aug. 2024 - Present

- Led weekly labs for 40+ students in hands-on exploration of digital logic, ASM, and C programming
- Supported a course with 700+ enrolled students by co-designing graded lab assignments, autograders, and detailed solution manuals, streamlining grading, and ensuring consistency across several different course sections
- Assisted students through online tickets and office hours to ensure course schedule and minimize repeat questions

Projects

CodeVerse | *Flask, Monaco Editor, Mantine, Gemini API, RealtimeSTT, Google Cloud*

- Built a full-stack AI coding interview simulator, combining Flask, Monaco Editor, and Mantine with Gemini API to simulate a dynamic, voice-interactive interview environment, featuring real-time, bidirectional audio
- Integrated RealtimeSTT library for low-latency speech input, and Google Cloud text-to-speech for voice output
- Designed dynamic interview logic for real-time code evaluation, question adaptation, and contextual follow-ups

Rentify | *Django, PostgreSQL, MVC, RESTful APIs*

- Designed and implemented a peer-to-peer rental platform supporting item listings, bookings, and payments
- Developed RESTful APIs using Django and PostgreSQL with an MVC architecture to support user authentication, inventory management, and transactional workflows
- Created model validation, error handling, and data relationships to ensure platform reliability and consistency

Q-Wordle | *Machine Learning, Q-learning, NumPy, Python*

- Designed and implemented machine learning agents with three different approaches (Naive Bayes, Monte Carlo Tree Search, and Q-learning) to solve Wordle, achieving 97% accuracy and 3.8 average guesses with Q-learning
- Developed custom Q-learning reward functions and leveraged NumPy for efficient training and policy convergence
- Built preprocessing pipelines and statistical dictionaries for 370k+ word corpus to optimize training and inference

Technical Skills

Languages: C, Java, Python, SQL, JavaScript, TypeScript, React, HTML, Swift, CircuitPython, LC-3 Assembly
Tools: Git, AWS, S3, Docker, Kafka, Amazon SQS, FFmpeg, MySQL, Kubernetes, Jenkins, Grafana, cURL, GDB
Libraries/Frameworks: gRPC, OpenCV, Django, ROS2, Dropwizard, NumPy, Matplotlib, Gemini, Javalin, JavaFX