RAHUL MENON

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EDUCATION

Virginia Tech | Virginia, United States
B.S. in Computer Engineering & Electrical Engineering (Double Major)

WORK EXPERIENCE

Full Stack Engineer | **FYI (Focus Your Ideas)** *2025 – Present*
Dubai, United Arab Emirates • Full-Time • On-Site

- Built and deployed **AI agents** end to end: **Python/FastAPI AI voice agents** using WebRTC, LLM tool calling, streaming audio, and persistent WebSockets, with Redis coordination and HTTP fallback.
- Designed **AI workflow automation** with TypeScript agent orchestration, persistent state, approvals, and third-party tool **API integrations**; calendar scheduling reduced executions by **77%** in a validated monthly-report scenario.
- Implemented **RAG and persistent AI memory** with content ingestion, citations, and access checks, using MongoDB, Qdrant, and embeddings for memory and semantic retrieval.
- Built AI tools automating **PDF, Word, Excel, and PowerPoint** deliverables with automated layout checks, and added browser-based verification of generated web applications.
- Delivered **user-facing interfaces for AI agents** in React/React Native Web (TypeScript), Swift/SwiftUI, and Kotlin/Jetpack Compose, letting users converse with assistants, schedule tasks, and monitor execution; reduced React Query synchronization requests by **up to 50%**.
- Optimized **Node.js/Express, MongoDB, and Redis services**; consolidated Google/Microsoft OAuth verification, reducing database lookups by **50% (4 to 2)** per applicable login.

Software Engineer (Product) | **Ranial Systems** *May 2024 – Jan 2025*
New York, United States • Full-Time • On-Site

- Built MODBUS/OCPP backend **integrations** for EV charger monitoring and fleet management, improving uptime by **10%**.
- Developed charger-health dashboards, reducing reporting latency by **40%**.
- Analyzed and optimized telemetry pipelines, reducing diagnosis time by **30%** and support tickets by **15%**.

DIRECT CLIENT ENGAGEMENTS (FREELANCE)

Studentize – AI Agents & SaaS Platform | **studentize.com** *Jan 2025 – May 2025*
Next.js — TypeScript — PostgreSQL — API Integrations

- Worked directly with the client from **requirements discovery** through delivery; designed admissions/support AI agents, and wrote proposals and implementation plans that contributed to **$10k+ new MRR** and **60%+** growth in qualified leads.
- Advised on and improved UX, performance, and SEO, increasing organic traffic by **40%+ within two months**.

AVIS – Engineering Time Tracking & Project Controls
Next.js — TypeScript — PostgreSQL — AI Integration — Docker

- Replaced the client's inconsistent free-text records with **workflow automation** for timesheets, document approvals, and project budget-versus-actual reporting, backed by validated relational data.
- Automated **Excel, CSV, PDF, and Word register imports**, mapping varied source layouts into structured project data with validation and editable previews before saving.
- Developed **permission-scoped AI analytics and scheduled reports**; owned deployment, with automated releases, encrypted backups, and documented production recovery procedures.

E3 Leasing – AI-Powered CRM Platform *Jan 2025 – May 2025*
React.js — Node.js — MongoDB

- Translated stakeholder requirements into contract, supplier, and lessee **workflows**, reducing manual work by **50%**.
- Implemented onboarding and approvals, accelerating contract cycles by **60%** and reducing data errors by **30%**.

TECHNICAL SKILLS

AI & Automation: AI Agents, LLM Integration, Tool Calling, RAG, Workflow Automation, API Integration, Agent Orchestration
Client Delivery: Requirements Discovery, Stakeholder Communication, Proposals & Implementation Plans, Deployment, Production Support
Languages & Frontend: Python, TypeScript, SQL, React, React Native Web, Next.js, Swift/SwiftUI, Kotlin
Backend & Cloud: Node.js, Express, FastAPI, REST, WebSockets, PostgreSQL, MongoDB, Redis, Qdrant, GCP, AWS, Kubernetes, Docker, Git, CI/CD