

RAHUL MITRA

+65 8515 5413 | mitrasahul2002@gmail.com | linkedin.com/in/rahulmitra-dev | rahul-mitra.com | github.com/Rah-Rah-Mitra

EDUCATION

National University of Singapore Bachelor of Engineering, Industrial Systems Engineering <ul style="list-style-type: none">Pursuing a Second Major in Computer Science and a Minor in Mathematics.Awarded Certificate of Outstanding Performance in 3D Computer Vision (CS4277): top student in a class of 24, NUS School of Computing.	Aug 2023 – Jul 2027
---	----------------------------

WORK EXPERIENCE

Operations Research (Contract), STMicroelectronics (NUS System Design Project) <ul style="list-style-type: none">Design an AI-driven put-away recommendation system for STMicroelectronics' Singapore warehouse, replacing experience-based slotting with capacity-aware decisions drawn from 3 live inputs: picking history, demand forecasts, and available capacity.	Aug 2026 – Present
Global Operational AI Systems & Data Engineer (Contract), Abbott Laboratories <ul style="list-style-type: none">Design a tool loop where a model emits schema-constrained JSON and the solver computes every number, gated by an automated numeric-fidelity check and a per-call audit log with no write path to plant control.	Jun 2026 – Present
Robotics Vision Engineer (AI+X Global Challenge), Amazon <ul style="list-style-type: none">Built vision systems turning raw camera feeds into perception-ready frames across 3 workstreams: camera ISP, super-resolution, and image restoration under real-world blur.	Jul 2026 – Oct 2026
Data Analytics & Product Management Intern, Abbott Laboratories <ul style="list-style-type: none">Validated a non-destructive, 15-stage changeover-data pipeline against 5 years of unseen raw data with zero execution failures across operator- and machine-generated anomalies.Productionized a team-built APC simulator for live internal users on Azure App Service with Docker packaging, access restrictions, and runtime and session hardening.	Jan 2026 – Jun 2026

PROJECTS

Team Lead & Finalist, Swarmline: SG Defense Tech Hackathon (1,300+ applicants) <ul style="list-style-type: none">Implemented a deterministic Unreal Engine 5.8 C++ simulation with Claude Code; under a ground-link jam, 30 drones confirmed all 8 walking targets in 10 of 10 seeded runs, against 2.1 for an operator-run fleet.	Sep 2026
Finalist, Volt Pulse SG: SMU Hack For Cities (Top 8 Finalist of 50+ teams) <ul style="list-style-type: none">Integrated SEALION embeddings, Supabase vector search, RRF routing, and scheduler-agent planning into an autonomous loop managing electricity and utility savings across multiple HDB households at once, placing top 8 of 50+ teams.	Jan 2026
Competitor, DSTA BrainHack 2025 CTF <ul style="list-style-type: none">Solved web, crypto, reverse-engineering, and systems-security challenges under time pressure, finishing around 90th of 400+ teams.	Feb 2025

LEADERSHIP AND ACTIVITIES

YesWeHack, Independent Bug Bounty Researcher <ul style="list-style-type: none">Assessed GovTech GBBP12/13, the Land Transport Authority, and 13+ other programs for SSRF, CSRF, SQL/NoSQL injection, authentication bypass, and access-control weaknesses.Automated endpoint discovery, payload delivery, and evidence collection for responsible-disclosure reports with Burp Suite, Wireshark, Python, Bash, and custom fuzzing scripts.Applied Burp Suite for MitM HTTP interception and Wireshark for OSI Layer 3-4 deep packet inspection and TLS handshake analysis.	May 2024 – Present
NTUC Health Active Ageing Centre, Elderly Care Volunteer <ul style="list-style-type: none">Coordinate weekly senior-engagement activities, building empathy for healthcare, accessibility, and community-focused product design.	Sep 2025 – Sep 2026
Republic of Singapore Navy, Base Support Assistant <ul style="list-style-type: none">Compressed a 6-month food-waste analysis cycle into a 3-minute reporting process with an Excel VBA automation workflow inside a security-constrained environment.	Jan 2022 – Jan 2023

SKILLS AND CERTIFICATIONS

Technical: Burp Suite, Wireshark, SSRF, CSRF, SQL/NoSQL injection, authentication bypass, OAuth2/JWT, OWASP Top 10, fuzzing, reverse engineering, custom exploit scripting, Python, Bash, Rust, Claude Code, ChatGPT, Gemini, ComfyUI
Certifications: Reverse Engineering Windows Executables (digital forensics); Docker for the Absolute Beginner (Stone River eLearning)