Rahul Vedant Pemsing

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Profile

Second-year Computer Science student (CGPA 3.77/4.00) specialising in Algorithms & Software, seeking a Software Engineer internship. I build and deploy working systems end to end: FastAPI backends, React frontends and AWS infrastructure (Lambda, DynamoDB, Amplify, ECR), backed by automated tests. Team lead on three hackathon projects, including a live AWS deployment that scored 1.000 on the organisers' benchmark and a deployed scam checker with 165 automated tests. Top 6.1% worldwide in A-Level Computer Science.

Education

Monash University Malaysia – B.Sc Computer Science (Algorithms & Software) **July 2025 - July 2028** (expected)

CGPA: 3.77/4.00. Relevant units: FIT2014 (formal languages, SAT, Turing machines), FIT1008 (data structures & algorithms), FIT2102 (functional programming), FIT2099 (object-oriented design), FIT1055 (IT ethics).

Cambridge A-Levels (Sir Abdool Raman Osman State College, Mauritius) **November 2024**

Computer Science A*, Mathematics A, Physics B, Chemistry B, English General Paper C. Top 6.1% worldwide in A-Level Computer Science; one of 59 out of 1,268 candidates in Mauritius to earn an A*.

AI & Research-Relevant Projects

Anxin: Bilingual Scam & Misinformation Checker (Team Lead, 4 members) **September 2026**

MUBA Blockchain Hackathon 2026, GonkaRouter track "AI For Society" (Top 11–21, Bounty Winner). anxin-protect.com

- Built the backend and consensus logic: two independent models (DeepSeek, MiniMax) assess each claim concurrently without seeing each other's output; agreement thresholds lower confidence as scores diverge, and the system reports "insufficient" rather than averaging.
- Privacy by design: no accounts or storage, phone/account numbers masked before model calls, screenshots read by local OCR with user confirmation. 165 automated tests; deployed live.

FairSight: AI Bias Auditing for Automated Hiring (Team Lead, 6 members) **May 2026**

Led a team of 6; solo-developed the project website (fairsight.org, 250+ unique visitors).

- Team proposal and prototype for a platform to detect, explain and mitigate bias in AI hiring, with four modules: bias detection (demographic parity, disparate impact, proxy-feature analysis), SHAP/LIME explainability, mitigation, and applicant recourse.
- Grounded in the ACM Code of Ethics, GDPR Art. 22 and the EU AI Act, using Amazon's 2018 recruitment tool as the case study.

ShipDoc: Shipping Document Check (Team Lead & AWS deployment, team of 5) **September 2026**

Averis × Monash Hackathon 2026. shipdoc.org and Docs at docs.shipdoc.org

- Designed so AI only reads messy documents while field comparison stays deterministic and testable; uncertain cases escalate to a human reviewer with an explanation.
- Scored 1.000 on the organisers' 520-email synthetic dataset (46/46 defective documents found, 0 false alarms). Deployed on AWS: FastAPI on Lambda (ECR container), DynamoDB audit trail, Amplify frontend.

Other Projects

- **2D Pathfinding Visualiser (FIT1045, Oct 2025):** Interactive app comparing A*, Dijkstra and RRT on custom or random grids by runtime, nodes explored and path length (Python, Streamlit, Plotly, NumPy).
- **Ed Discussion Data Scraper:** Built a Python tool that exports every post from an Ed Discussion course to JSON and Markdown via the Ed API, with rate-limit handling.

Leadership & Experience

Year Representative, Monash University Student Association (MUSA-SOIT) **Jan 2026 - Present**

- Primary link between Year 1 Computer Science (Algorithms & Software) students and the School of IT committee and faculty; raise student feedback at faculty level.

Byte Buddies Mentor, Monash School of IT **Mar 2026 - Aug 2026**

- Mentored 12 first-year IT students across two intakes, running weekly sessions on workload, assessment prioritisation and university resources.

Team Lead, TeaMWork Virtual Internship (Monash-Warwick Alliance) **Jun 2026 - Jul 2026**

- Led a 7-person international team advising NANKA on market entry for two product lines; delivered market research, distributor evaluation, weekly reports and a 14-slide final strategy.

Skills & Certifications

Programming Languages: Python, Java, C/C++, C#, TypeScript, Assembly.

AI & data: LLM API integration, SHAP, LIME, NumPy, Pandas, Plotly, matplotlib, Streamlit.

Cloud & tools: AWS (Lambda, DynamoDB, Amplify, ECR), Docker, FastAPI, React, Git.

Databases: Oracle SQL, MongoDB, DynamoDB.

AWS course completions: Foundations of Prompt Engineering (Oct 2026); Cloud Practitioner Essentials, Job Roles in the Cloud, Command Line Interface (CLI) Basics (Sep 2026).

Microsoft Applied Skills: Streamline business workflows with AI chat (Sep 2026, credential F38ECE28672A4488).

Language: English, French.