

Rassel Susanto Chioe

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PROFILE

Second-year Computer Science (with a Year in Industry) student at the University of Liverpool, specialising in cybersecurity and seeking a 2026/27 placement in the Liverpool/Manchester area. Achieved a first-class Year 1 average (~74%) and have built hands-on security projects spanning password auditing and hash-cracking simulation, alongside full-stack web development. Combines strong analytical and problem-solving skills with a creative background in photography and web design.

EDUCATION

University of Liverpool | BSc Computer Science (Year in Industry)

2024 – 2028

Cybersecurity specialism. Expected graduation June 2028. First-class Year 1 average (~74%).

Year 1 modules (2024/25, final marks):

Object-Oriented Programming (93), Analytic Techniques for Computer Science (78), Data Structures & Algorithms (74), Foundations of Computer Science (73), Introduction to Artificial Intelligence (71), Programming Language Paradigms (70), Designing Systems for the Digital Society (70), Computer Systems (62).

Year 2 modules (2025/26, provisional, subject to confirmation June 2026):

Software Engineering I (79), Advanced Artificial Intelligence (73), Planning your Career (64), Computer Networks (56), Database Development (55).

In progress: Cyber Security, Complexity of Algorithms, Group Software Project, Computer Aided Software Development.

Cambridge A Levels: Computer Science (A), Mathematics (B), Business (B).

Cambridge IGCSE: English as a First Language (A*), ICT (A*), Combined Sciences (A*), Mathematics (A), Economics (A), Business Studies (B), Bahasa Indonesia (B).

IELTS: Overall Band 7.5.

TECHNICAL PROJECTS

Built using Claude Code (AI-assisted development) as a deliberate way to strengthen my software development, design and version control (Git) skills.

Password Strength Auditor | Python

github.com/rasselchioe/password-strength-auditor

- Built an educational security tool with a static analyser that scores passwords on length, character variety, repeated characters, keyboard walks, dictionary words and common-password lists, with an upper-bound Shannon entropy estimate.
- Implemented an offline-first Have I Been Pwned breach check using the k-anonymity API, so the full password never leaves the user's machine.
- Developed a cracking simulator running dictionary, rule-based and bounded brute-force attacks against MD5, SHA-1, SHA-256 and bcrypt hashes to demonstrate why slow, salted hashing matters.
- Structured as an installable package with a CLI and a `pytest` test suite, plus a documented security/ethics usage policy.

Stash | Full-Stack Personal Finance Dashboard

github.com/rasselchioe/spending-tracker

- Designed and built a full-stack web app (React 19 + TypeScript + Tailwind front end; Node.js/Express + TypeScript back end; SQLite via Prisma ORM) for tracking income, expenses, budgets, savings goals and analytics.

- Implemented secure authentication using JWTs stored in httpOnly cookies, with password change and protected API routes.
- Created a full REST API, Chart.js dashboards, CSV import/export and database backup/restore, with end-to-end tests in Playwright (59 commits).

rasslab.dev | Personal Website & Portfolio

rasslab.dev

- Designed and developed a personal website showcasing projects and photography work, built with HTML/CSS and deployed on Cloudflare.
- Applied responsive web design and clean visual layout, drawing on photography and branding experience.

EXPERIENCE

PPI Liverpool | Finance Team Member

Sept 2024 – Present

- Forecast demand and built budgets for social and sports events, supporting accurate financial planning and cost efficiency.
- Managed expense tracking, reimbursement handling and transparent budget records.
- Performed risk assessments and break-even/margin-of-safety calculations to minimise financial risk, and set balanced pricing strategies with departmental teams.

ILUMINEN, Bali | Assistant Photography Intern

July 2022 – Aug 2024

- Managed equipment setup (lighting, monitors, gimbals) to support full event coverage.
- Organised and selected client deliverables, ensuring data integrity and timely delivery.
- Developed an eye for detail and a structured approach to workflow management.

Murni Cosmetics, Bali | Information Technology Intern

Dec 2022

- Collected and managed sales data from multiple e-commerce platforms and the Point of Sale system to track performance and stock levels.
- Identified trending products by analysing sales patterns and produced data reports to support forecasting and inventory planning.
- Provided customer service and technical support, strengthening problem-solving and communication skills.

Regents Secondary School, Bali | Production House Documentation Team **July 2022 – June 2023**

- Managed event documentation and produced content reports for the student union's Instagram, ensuring consistent branding and accurate engagement data.
- Collaborated across departments to streamline communication and maintain branding across platforms.
- Gained experience organising projects, planning schedules and meeting tight deadlines.

TECHNICAL SKILLS

- **Languages:** Python, Java, TypeScript, JavaScript, SQL, Haskell.
- **Security:** password auditing, hashing & salting (bcrypt vs MD5/SHA), entropy estimation, HIBP k-anonymity, secure authentication (JWT, httpOnly cookies).
- **Web & Software Development:** React, Node.js/Express, Prisma, HTML/CSS, Tailwind, REST APIs, Git & GitHub, build tools (Apache Ant), unit and end-to-end testing (JUnit, pytest, Playwright), object-oriented design.
- **Tools & Platforms:** Eclipse, Linux, Windows, Cloudflare, SQLite, Microsoft Excel (pivot tables, reporting) & Access.
- **Design & Creative:** Adobe Lightroom & Photoshop, photography, web design and branding for social media.
- **Professional:** stakeholder communication, cross-department collaboration, attention to detail and turning raw data into actionable insights.