

# RUI XUAN CALVIN WU

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## EDUCATION

### University of Cape Town:

2023-2025

- Bachelor of Science (BSc) Degree: Computer Science and Business Computing (Information Systems)
- Final year Information System major average: **68.80% at NQF level 7.**

### Woodhill College Highschool:

2018-2022

- Final National Senior Certificate grade average of **75% at IEB academic level.**

### Languages:

- English (native-level), Cantonese (native-level), Mandarin (proficient level)

## TECHNICAL SKILLS AND RELEVANT COURSE WORK

**Tech Stack:** Java · C# · Python · SQL (MS SQL Server) · Excel · R · Git · pandas · numpy · Jupyter Notebook · Linux/Bash · AWS Cloud Fundamentals · Docker (exposure) · LLM/AI tools (ChatGPT, etc.)

**Technical Content:** Advanced Software Design, Theory of Algorithms, Theory of Computation, Operating Systems, Computer Networks, Concurrent and Parallel Computing (including practical work in Java), Computer Architecture, Data Structures, Ethics, Business Process Management, Enterprise Systems, I.T Project Management, Data Science and Analytic Tools

## PROJECT EXPERIENCE

Maximum Satisfiability (MaxSAT) project with NP-hard problem optimization (completed in Rust); Peer-to-peer protocol data transfer system(Socket Programming); Hotel Booking System app development (completed in C#); Business Process Management project with City of Cape Town Clinic; ERP systems; Data Analytics and Reporting with real-time dashboard visualisations using SAP Analytics Cloud and Business Builders; *Linguista app* - Language Learning Agent using LLMs.

## EXTRA-CURRICULAR LEADERSHIP EXPERIENCE

### Chairperson (head of student society)

Sept. 2025 - 2026

- UCT Asian Student Association (ASA) Society
  - Lead and oversee the ASA executive team, ensuring alignment with the society's mission and goals.
  - Manage society operations, including event planning, internal coordination, stakeholder engagement, and key decision-making.
  - Represent ASA in engagements with key UCT stakeholders - including the Department of Student Affairs, SRC, and the Confucius Institute - as well as external cultural organizations and partner societies for collaborative events.
  - Guide and work closely with executive team to plan, and deliver cultural, social, and community-building events that showcase rich and diverse asian culture that strengthen cultural understanding on campus.
  - Foster an inclusive, vibrant community for students of Asian heritage and those interested in Asian culture, ensuring a positive and enjoyable experience for the Asian student community at UCT.

### Subcommittee Member

Aug. 2024 - Dec. 2025

- UCT Developer Society
  - Support the committee in planning and executing society events, ensuring smooth operations and engaging experiences for members.
  - Assist with event logistics, including venue coordination, setup, and resource management.
  - Connect and engage with companies and sponsors to secure partnerships and enhance events.
  - Collaborate closely with executive members to make sure events run smoothly.

## WORK EXPERIENCE

### Full Stack Co. (Software Development Internship in Cape Town, South Africa)

June - July 2025

- With guidance and mentorship from developers, [Zuleigha Patel](#), [Iffat Mollah](#) and [Joseph Msimango](#), collaborated with a team of interns to implement a full-stack asset tracking system for a real client using .NET Blazor MAUI, C#, and MS SQL Server, contributing to both front-end (HTML/CSS) and back-end (RESTful APIs) components.
- Was responsible to enhanced software reliability by integrating Sentry for real-time error tracking and performance monitoring, proactively identifying issues during development and deployment.
- Worked within a structured team environment, applying Git version control to maintain efficient workflows. Took on a mentorship role by guiding less experienced interns while also learning from senior developers, strengthening leadership, communication, and critical thinking skills.
- Conducted agile approach to the project, emphasizing teamwork, problem-solving, and delivering iterative solutions and demos under deadlines.

### Data Science Corporation (Vacation Work in Johannesburg, South Africa)

July 2024

- Infrastructure & Data Centre Operations: Shadowed [Antony Fok](#) (systems engineer trainee) to assist in the deployment and configuration of new storage nodes at a client's data centres. Under his guidance, observed the full node lifecycle: physical installation, initialisation via Linux command line, and system balancing to ensure data redundancy and resilience.
- Core Systems Administration: Developed foundational knowledge of key technologies including VMware vSphere and PureStorage hardware. Learned Linux-based system management and scripting from [Antony Fok](#) using bash commands for node status checks and configuration.
- Software Development & DevOps Exposure: Shadowed Developer [Richard Raymond](#) and his team in creating GPU-enabled Ubuntu-server VMs for their client's AI projects. Gained insight into containerization with Docker, user permission management, and observed his co-worker Justin, developing a management portal using PHP.
- Proactively engaged with [Antony Fok](#), [Richard Raymond](#), and [Justin](#) to understand project workflows from infrastructure to development, client needs. Took the initiative to create a personal Ubuntu instance on DSC's testing environment to better understand the virtualisation process firsthand.

### Amazon AWS Skill Center (Training & Certification in Cape Town, South Africa)

Sept. 2023

- Participated classroom-like training and practical workshops with [Nigel Solomons](#) and [Tshepo Marokana](#), the 2 supervisors.
- Earned certificates of completion for 8 AWS training courses, totalling over 25 hours of instruction in cloud fundamentals and IT best practices.
- Built a comprehensive foundation in cloud computing through the complete "Becoming a Cloud Practitioner" learning path.
- Supplemented cloud training with essential IT knowledge in security, networking, and storage through the AWS "Computer Foundations" series.
- Applied learning in a practical setting via an instructor-led lab session, gaining initial hands-on experience with the AWS platform.

## Project Highlights

*Linguista* (Personal Project): Developing a multilingual language learning agent processing word datasets across 20+ languages. Built data ingestion and cleaning pipelines using Python and pandas, with LLM integration for intelligent language tutoring.