

# THULISILE VILAKAZI

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## PROFILE

Final-year Software Engineering student at WeThinkCode\_ specialising in Data Engineering. Experienced in building data pipelines and scalable applications using Python, SQL, and Java on Linux/Unix systems. Skilled in database design, algorithms, and object-oriented programming, with a strong foundation in debugging and collaborative Agile development. Seeking opportunities to design data infrastructure and backend systems that deliver meaningful business impact.

## EDUCATION

<b>WeThinkCode_</b> Diploma in Software Engineering (NQF 6 )	<b>Cape Town, South Africa</b> 2024 – Present
<ul style="list-style-type: none"><li>Hands-on, project-based programme focused on software development, teamwork, and problem-solving.</li><li>Gained proficiency in Java, Python, SQL, Git, Docker, and Linux/Unix systems.</li><li>Applied Agile methodologies, Test-Driven Development (TDD), and version control in real-world projects.</li></ul>	
<b>University of Cape Town (UCT)</b> Bachelor of Laws (LLB)	<b>Cape Town, South Africa</b> 2017 – 2022
<ul style="list-style-type: none"><li>Developed analytical thinking, research methodology, and structured problem-solving through legal case analysis and academic writing.</li></ul>	

## TECHNICAL SKILLS

<b>Programming Languages:</b> Python, Java, SQL, Bash, HTML/CSS
<b>Frameworks &amp; Tools:</b> Django, Git, GitHub, Docker, Maven, Pandas
<b>Databases:</b> PostgreSQL, SQLite
<b>Systems:</b> Linux/Unix (command line, shell scripting, system administration)
<b>Core Competencies:</b> Algorithms, Data Structures, OOP, Debugging, Problem-Solving
<b>Development Practices:</b> Agile Scrum, Test-Driven Development (TDD), CI/CD, RESTful API Development
<b>Additional Exposure:</b> AWS fundamentals, Cybersecurity principles, AI/ML concepts

## KEY PROJECTS

<b>Mukuru Loyalty Rewards Hub — Django Web App</b>	<b>2025</b>
<ul style="list-style-type: none"><li>Developed during Mukuru x WeThinkCode_ SheHacks Hackathon; achieved <b>2nd place overall</b>.</li><li>Built gamified rewards platform with user authentication, points system, and real-time leaderboards using Django and PostgreSQL.</li><li>Implemented RESTful APIs for customer engagement tracking and deployed functional MVP within 48-hour deadline.</li></ul>	
<b>ArrowRoute (Bus Schedule App) — Python Backend</b>	<b>2024</b>
<ul style="list-style-type: none"><li>Built automated backend system parsing PDF bus timetables into structured CSV data using Python and Pandas.</li><li>Implemented data validation logic and efficient search algorithms for real-time schedule queries.</li><li>Designed modular architecture with clean code principles and comprehensive error handling.</li></ul>	
<b>FraudLens AI — Data &amp; Cybersecurity Project</b>	<b>2025</b>

- Researched AI-driven fraud detection systems, focusing on anomaly detection algorithms and data preprocessing pipelines.
- Analysed transactional datasets to identify patterns indicative of fraudulent behaviour.
- Applied Python for data analysis and explored machine learning approaches for scalable security solutions.

### UbuhleLegal (Legal Education Platform) — Django Web Application

2024 – Ongoing

- Building full-stack Django application providing accessible information on South African customary marriage law.
- Designed RESTful APIs, PostgreSQL database schema, and user-friendly navigation with focus on accessibility.
- Managing project lifecycle from requirements gathering through deployment using Agile methodologies.

## PROFESSIONAL EXPERIENCE

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### WeThinkCode\_ Front Desk Assistant

Jan 2025 – Present  
Cape Town, South Africa

- Serve as first point of contact for students, visitors, and industry partners, representing the organisation at recruitment events and campus activities.
- Provide administrative and logistical support for daily campus operations, coordinating events and maintaining accurate student records.
- Facilitate communication between students, technical staff, and external stakeholders in fast-paced tech education environment.

### University of Cape Town Front Desk Coordinator

Jan 2019 – Dec 2019  
Cape Town, South Africa

- Managed team of 14 front desk assistants, providing training, performance oversight, and coordinating schedules to ensure continuous coverage.
- Acted as primary liaison between residence management, students, and staff, handling escalated inquiries and resolving issues promptly.
- Oversaw administrative operations including student record management, maintenance tracking, and event logistics for residence programmes.

### University of Cape Town Front Desk Assistant

Jan 2018 – Dec 2018  
Cape Town, South Africa

- Provided administrative support to staff, students, and parents in university residence environment with professionalism and efficiency.
- Maintained residence records, handled in-person and telephonic inquiries, and supported event planning and logistics.

## CERTIFICATIONS

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SANCS25 — Southern Africa–Netherlands Cyber Security School (2025)

OPSWAT Introduction to Critical Infrastructure Protection (2025)

Google Foundations of Cybersecurity (2025)

Microsoft AI Fluency (2025)

WeThinkCode\_ GenAI for Software Engineers (2025)