

## Ntsako Shabalala

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## PROFILE

Recent Biological Sciences graduate with three years of academic and research training, now transitioning into the field of Computer Science. Strong problem solving and analytical background combined with growing software development skills and computer science knowledge. Passionate about bridging science and technology through coding, bioinformatics, and health tech innovation. Seeking opportunities where scientific insight and programming intersect.

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## EDUCATION

### BSc Biological Sciences

University of Witwatersrand, Johannesburg — *Graduated: 2025*

- Core coursework: Biochemistry, Molecular Biology, Statistics, Chemistry
- Final-year research project on enzyme activity in microbial systems
- Gained experience with data analysis and scientific writing

### Computer Science (In Progress)

University of Witwatersrand, Johannesburg — *2025: present*

- #Learning Python, JavaScript, HTML/CSS, Git, and basic algorithms and data structures
  - # Focus areas: full-stack web development, bioinformatics scripting, and data analysis
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## TECHNICAL SKILLS

- **Programming Languages:** Python, JavaScript, HTML5/CSS3, Bash (basic)
  - **Tools & Frameworks:** Git, VS Code, Jupyter Notebook, Flask (beginner)
  - **Bio/Scientific Tools:** R (basic), Excel for scientific data, Spectrophotometers, PCR
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## PROJECTS

### TopWinz Raffle App (Python, Java, Django) — *Personal project*

Developed a raffle-based web application allowing users to buy tickets for a chance to win prizes, ranging from everyday items to luxury assets.

- Built using Django framework with Python and Java

- Implemented models, views, and URL routing for dynamic raffle logic
- Managed database schema and CRUD operations
- Integrated APIs for email notifications and winner announcements
- Focused on backend logic, database interaction, and user authentication workflows
- Worked on the frontend incorporating HTML and CSS

### **Health Tracker Web App** (JavaScript + HTML/CSS) — *Personal Project*

Simple web app to input and visualize daily health metrics (hydration, meals, sleep).  
Designed to practice DOM manipulation and localStorage.

### **Microbe Metrics Dashboard** — *Concept Project*

Planned Flask-based dashboard to visualize microbial growth curves and enzyme activity.  
Intended to automate parts of past lab work using Python.

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## **WORK EXPERIENCE**

### **## my first job** — (where to apply?) — 2025

- Prepared lab materials and assisted with undergraduate practicals
- Recorded and organized sample data for genetics and microbiology experiments
- Collaborated with postgraduate researchers on experiment setup

### **## my second job** — (loading) — coming soon

- Built customer communication skills and handled point-of-sale systems
- Managed inventory and assisted in troubleshooting devices

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## **CERTIFICATIONS & COURSES**

- CS50x: Introduction to Computer Science – HarvardX (Completed)
- #Python for Everybody – University of Michigan (Coursera)
- #Scientific Computing with Python – freeCodeCamp
- #Bioinformatics Specialization – UC San Diego (Planned)

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## **INTERESTS**

- Scientific software development, coding in biology, data visualization, app development, gamified learning tools, and open science