

MICHAEL VAN NIEKERK

(+27)78 725 8846
muzimike@gmail.com

I am a senior software developer with over 6 years of experience who is passionate about writing software for good. I care deeply about writing code that helps ordinary people live better quality lives. In my spare time I enjoy film photography, learning isiXhosa, and running unreasonably long distances.

EDUCATION

Masters in Data, Economics & Development Policy (Economics) , <i>Massachusetts Institute of Technology (MIT)</i> <i>Econometrics, Political Economy, Machine Learning & AI, Microeconomics, Data Science</i>	2022
Bachelor of Science (Economics) , <i>University of Cape Town (UCT)</i> <i>Advanced Micro & Macro, Econometrics, Labour Economics</i>	2018
TESOL Qualification , <i>University of Witwatersrand Language School (WITS)</i>	2016
Bachelor of Science (Mathematics & Physics) , <i>University of Cape Town (UCT)</i> <i>Real Analysis, Linear Algebra, Advanced Calculus, Metric Space, Differential Equations, Numerical Methods, Computer Science</i>	2015

WORK EXPERIENCE

LUMKANI <i>Senior Software Developer</i>	Nov 2022 — Present <i>Cape Town, South Africa</i>
<ul style="list-style-type: none">Developed core features using Vue.js/Capacitor for web/app and Django/Python/MySQL for backendIntroduced operations review with enhanced telemetry and monitoring to improve customer experienceTransformed our ETL system into a deployable, infrastructure-as-code repository with a QA environmentCompleted a multi-year live migration off of our legacy single table DB designLed a cross-team project to reduce time taken to payout insurance claims	
EVIDENCE FOR POLICY DESIGN AT HARVARD KENNEDY SCHOOL <i>Research Intern</i>	Jun 2022 - Aug 2022 <i>Cambridge, Massachusetts</i>
<ul style="list-style-type: none">Wrote a Python CLI tool to automate repetitive, daily high frequency checks on survey responsesDesigned and executed a migration plan to version control all existing code in GithubAnalysed targeting of the Indonesian government's fuel subsidy policy using Stata	
AMAZON WEB SERVICES <i>Software Developer</i>	May 2020 — Nov 2021 <i>Cape Town, South Africa</i>
<ul style="list-style-type: none">Automated (with the team) the migration of ~ 3000 databases from MySQL 5.5 to MySQL 5.7 without downtimeImproved the success rate of our automated database life-cycle management (Python, Ruby, Bash)Audited and subsequently fixed a high severity replication risk that previously caused data inconsistenciesCredited with ownership of high severity risk which lead to a promotion within 1st year	
ACTION APPOINTMENTS <i>Software Developer (Part time)</i>	Jan 2020 — Dec 2022 <i>Cape Town, South Africa</i>
<ul style="list-style-type: none">Rewrote the back & front end recruitment management system in Django, MySQL, and ReactProvisioned and configured Azure cloud resources (with CD) to host the new systemMigrated all customer and client data from on-premise server to Azure and Microsoft 365 to ensure 24/7 access	
ELECTRUM PAYMENTS <i>Software Developer</i>	Apr 2018 — Apr 2020 <i>Cape Town, South Africa</i>
<ul style="list-style-type: none">Popularised a RESTful testing framework and paradigm to improve reliability of production codeEnhanced a banking client's mobile payments service to add new features for over 10 million usersRedesigned a banking client's user authentication system to a new, robust RESTful Java backend with a MySQL datastoreDesigned and built a new product in Java to allow clients to automate payment reconciliation and settlement	

CORE SKILLS

Software	Python, Javascript, Vue.js, AWS, Java, Ruby, SQL, R, Bash, Stata, Git, Docker
Knowledge Systems	Databases, data processing, modelling, econometric analysis
Communication	Public speaking, critical thinking, facilitating workshops, delivering presentations, debate
Languages	English, isiZulu, isiXhosa