

Dr. Patrick Tchankue-Sielinou

Senior Software Engineer | PhD in Computing Sciences

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PROFESSIONAL SUMMARY

Results-driven Senior Software Engineer with 15+ years of experience across fintech, telecommunications, and academic research. Specialises in backend systems, cloud-native development, and AI-based user interfaces. Proven track record in leading software teams, designing scalable micro-services, and delivering impactful digital solutions. Holds a PhD in Computing Sciences focused on adaptive user interfaces and multimodal systems.

WORK EXPERIENCE

Senior Consultant

Tangent Solutions — August 2021 – Present

- Led development of a cloud-native loan portal for a micro-finance institution.
- Tech Stack: Docker, Kubernetes, Django, Redis, Vue.js, ReactJS
- Deployed solutions on Azure and AWS, with automated CI/CD pipelines.
- Conducted performance optimisation with JMeter and Locust.

Senior Java Developer

African Bank — December 2017 – July 2021

- Spearheaded in-house debt collection system and backend integrations.
- Built Java microservices for high-volume transactions.
- Supported Dockerized Python applications and led DevOps initiatives.
- Guided junior developers and managed legacy data migrations.

Senior Consultant

Tangent Solutions — April 2016 – November 2017

- Designed and deployed microservices to transition from a monolithic system.
- Tools: SpringBoot, Jenkins, Eureka, Zuul, GitLab, Nexus, Nginx.
- Worked on WebMethods SOA architecture in the banking sector.

Senior Software Developer

Yookos Microblogging — October 2014 – March 2016

- Developed RESTful APIs using Django REST Framework.
- Used Cassandra, MongoDB, and Neo4J for scalable backend services.
- Implemented TDD with Django test tools; integrated Redis and RabbitMQ.
- Worked on image and sound processing features.

Lecturer Assistant

Nelson Mandela Metropolitan University — Feb 2011 – Jul 2014

- Delivered first-year lectures on End User Computing.
- Supported Honours-level courses on Mobile Computing and Usability.

IT Consultant

Department of Defence, Cameroon — Jan 2006 – Feb 2008

- Built desktop applications for vehicle maintenance tracking.
- Tools: Visual Basic, MS Access; also set up internal Wi-Fi networks.

IT Consultant

Department of Economy and Planning, Cameroon — Jan 2004 – Nov 2006

- Created intranet tools and project-tracking software.
- Stack: Java, Oracle, Visual Basic, ASP, JavaScript.

Freelance Software Engineer — Jul 2002 – Jan 2004

- Delivered custom web and desktop solutions for clients.
- Provided network setup and documentation for SMEs and internet cafés.

EDUCATION

PhD in Computing Sciences

Nelson Mandela Metropolitan University, South Africa | 2011 – 2014

- Thesis: *The Impact of an Adaptive User Interface on Reducing Driver Distraction*
- Focus: AI, multimodal interfaces, in-car communication systems

MSc in Computing Sciences

Nelson Mandela Metropolitan University, South Africa | 2009 – 2010

- Dissertation: *An Intelligent Multimodal Interface for In-Car Communication Systems*

BSc Honours in Computer Sciences

Yaoundé I University, Cameroon | 2001 – 2002

BSc in Computer Science

Yaoundé I University, Cameroon | 1997 – 2001

TECHNICAL SKILLS

Languages: Java, Python, C#, C++, Go, Rust, Ruby, Fortran, PHP, ASP.NET

Web Frameworks: Django, SpringBoot, Ruby on Rails

Databases: PostgreSQL, MySQL, MongoDB, Cassandra, Neo4J, Oracle

Tools: Docker, Kubernetes, Jenkins, GitLab, Redis, RabbitMQ

Cloud: Azure, AWS, Google App Engine

OS: Linux (Ubuntu, CentOS), MacOS, Windows, Android

RESEARCH & PUBLICATIONS

- 10+ peer-reviewed publications in HCI and AI, presented at SAICSIT, SATNAC, and international conferences.
- Topics: Driver distraction, adaptive interfaces, in-car systems
- **Award:** Best Paper, SAICSIT 2012
- **Visiting Researcher:** MIT AgeLab (invitation, 2012)

VOLUNTEER EXPERIENCE

Advisory Board Member — UNISA School of Computing

INTERESTS

Judo, football, running, IT magazines, puzzles, travel

REFERENCES

Available upon request