

# Winnie B. Mbaka

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## ACADEMIC INFORMATION

**MSc. Information Systems Security.** **Dec 2021**

Strathmore University, Nairobi, Kenya.

### Master's Thesis Title

An Online Neural Network Based Password Prediction, Generation, and Storage Scheme

**BSc. Business Information Technology** **June, 2016**

Strathmore University, Nairobi, Kenya.

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## RESEARCH EXPERIENCE

**Researcher/Software Developer** **May 2017- Present**

@iLabAfrica, Nairobi, Kenya.

- Instituting, coding, testing, and debugging existing e-health applications (e-checklist and BLIS)
- Developed visualisations for Kenya Health and Research Observatory (<https://khro.health.go.ke/>)
- Conducting research as part of integrating design strategies into application capabilities
- Analyzing user requirements and translating them into functional features while liaising with the implementation team

**Erasmus Study Program** **Jan, 2020- Aug, 2020**

Brno University of Technology, Brno, Czech Republic

- Investigated the effects of implementing different variables during modelling, validation, and verification of real-time systems
- Demonstrated findings using Uppaal
- Defended the research topic to jury of 3 professors

**Teaching Experience** **May, 2018- July, 2018**

Strathmore University, Nairobi, Kenya.

- Selected as teaching assistant for communication skills, a core course for undergraduate programs
- Designed and led weekly lecture review and discussion sections for group of 15 students
- Designed course materials including study problems and exams
- Graded problem sets and exams

**Research Scholar**

**April, 2016- April, 2017**

@iLabAfrica, Nairobi, Kenya.

- Gathered user requirements for all projects undertaken within e-health department
- Aligned development methodologies with research goals
- Scheduled and coordinated meetings between management and other stakeholders
- Documented application manuals for end-users
- Conducted capacity building seminars

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### **SKILLS AND INTERESTS**

**Computer:** Proficient in Power Bi, Uppaal, Php, Python

**Language:** English (Native), Swahili (Native)

**Interests:** History, particularly antiquity, museum visits and travels

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### **CONFERENCE PRESENTATIONS**

**Strathmore University Annual Research Symposium, 2019-** presented an abstract titled, “*Mobile and Web e-Checklist System for the support of WHO SLIPTA- lab accreditation process*”.

**IST-Africa, 2019-** presented progress report on the implementation of M-Health4Afrika in Kenya, a telehealth program that is aimed at strengthening healthcare delivery in resource-constrained areas.