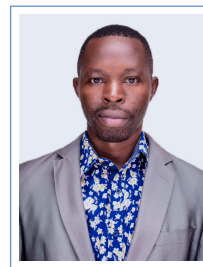


Daniel Ogenrwot

Ph.D Cand., Computer Science

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🐙 Github in LinkedIn 📄 Google Scholar



"And you will know the truth, and the truth will set you free."

YESHUA, A.D 2000

Experience

2023

Graduate Research/Teaching Assistant, Department of Computer Science, University of Nevada Las Vegas (UNLV), Las Vegas, Nevada, United States.

<https://unlv.edu>

2022

Assistant Lecturer, Department of Computer Science, Gulu University.

<https://gu.ac.ug>

2023

Ph.D Research Fellow, AirQo Project, College of Computing and Information Sciences, Google.org Impact Challenge Project, Makerere University.

<https://airqo.net>

2019

Software Engineer, AirQo Project, College of Computing and Information Sciences, Google.org Impact Challenge Project, Makerere University.

<https://airqo.net>

2017

Teaching Assistant (Graduate Trainee), Department of Computer Science, Gulu University.

<https://gu.ac.ug>

2016

Head of Technical Department, Zoom Wireless ISP/SINFA Uganda Ltd., Note: Project officially ended in the year 2020.

Network Operation Centre (NOC) Engineer.

Zoom Wireless ISP/SINFA Uganda Ltd.

Note: Project officially ended in the year 2020

2014

Micro Worker, Sama Uganda., <https://www.sama.com>.

Education

2023

Ph.D. in Computer Science, University of Nevada Las Vegas (UNLV).

Las Vegas, Nevada, United States

◦ Advisor (s): Dr. John Businge

Current 4.00/4.00 (Distinction)

CGPA :

2018

MSc. in Computer Science, Makerere University, Kampala, Uganda.

◦ Advisor (s): Dr. Joyce Nakatumba-Nabende & Prof. Michel Chaudron

◦ Thesis: *Using Machine Learning to Understand the Association of Design Smells with Role Stereotypes in Software Systems.*

CGPA : 4.47/5.00 (Distinction)

2010

BSc. in Computer Science, Gulu University, Gulu, Uganda.

◦ Advisor (s): Dr. Geoffrey Andogah

◦ Project Report: *Contextually and Geographically Relevant Ads Placement System.*

CGPA : 4.48/5.00 (First Class Honours)

Research Area

Software

- Engineering
 - Software bug localization & patching
 - Software maintenance and reuse
 - Software variants (social forks and divergent forks)
 - Software evolution
 - Code & Design smells detection

ML/AI

- Automatic program repair
- Agentic LLM for software systems
- Generative Adversarial Networks (GANs)
- AI4Science

Data Mining

- Mining Software Repositories
- Graph mining
- Dependency network analysis

Honors & Awards

2025

Distinguish Artifact Award, The 25th IEEE International Conference on Source Code Analysis and Manipulation (SCAM).

2025

GPSA Research Grant, Amount: \$1,249, Graduate & Professional Student Association (GPSA), UNLV.

2024

UNLV Access Grant, Amount: \$2,000, University of Nevada, Las Vegas. Grant

2024

Roy and Helen Kelsall Scholarship Fund, Amount: \$1,000, College of Engineering, University of Nevada, Las Vegas, Awarded for academic excellence. Scholarship

2024

GPSA Research Grant, Amount: \$1,456, Graduate & Professional Student Association (GPSA), UNLV.

2019

MTN MoMo Open API Challenge — 1st Runner-Up (Transport), Prize: \$2,000, MTN Mobile Money. Competition Award

2018

Makerere University / Sida (Swedish Government) Two-year scholarship. Total value: \$15,000. Scholarship

2013

First-Class Honors, BSc Computer Science, Gulu University, Uganda. Offered Teaching Assistant position. Academic Distinction

Certifications

2025

Microsoft.
GitHub Copilot

2023

Elsevier.
Certified Peer Reviewer

2023

UNLV Alliance of Professionals of African Heritage.
Certificate of Academic Excellence

2022

IETLS.

British Council Professional English Language Certificate with overall band score of 7.0

2020

Huawei Certified ICT Associate-Artificial Intelligence (HCIA-AI).

Huawei

2020

Google Cloud, Certificate of Completion.

Google Africa Developers Training Program

2020

Cloud Application Developer 2019, Mastery Award.

IBM Cloud

2020

Cloud Application Developer 2019 , Explorer Award.

IBM Cloud

Publications

Book Chapters

- 2025 **Deo Okure, Engineer Bainomugisha, Ogenrwot, Daniel, Richard Sserunjogi, Priscah Adrine, and Gabriel Okello**, *Case Study of Participatory Data-Driven Approaches to Improve Urban Air Quality in Kampala, Uganda*, JHU Press, 2025.

Journal Articles

- 2025 Blessing U Mberu, Elaine O Nsoesie, Mansoureh Abbasi, Priscah Adrine, Femi Ola Aiyegbajeje, Edward Asemadahun, Engineer Bainomugisha, Elizabeth Bakibinga, Pauline Bakibinga, Donatien Beguy, **Ogenrwot, Daniel**, et al. *Urban Health in Africa*. Johns Hopkins University Press, 2025.
- 2022 Richard Sserunjogi, Joel Ssematimba, Deo Okure, **Daniel Ogenrwot**, Priscilla Adong, Lillian Muyama, Noah Nsimbe, Martin Bbaale, and Engineer Bainomugisha. Seeing the air in detail: Hyperlocal air quality dataset collected from spatially distributed airqo network. *Data in Brief*, volume 44, page 108512, 2022.
- 2021 **Daniel Ogenrwot**, Joyce Nakatumba-Nabende, and Michel R.V. Chaudron. Integration of design smells and role-stereotypes classification dataset. *Data in Brief*, volume 36, page 107125, 2021.
- 2019 Anthony Arthur Ashaba, Drake Patrick Mirembe, Robert Tumusiime, and **Ogenrwot, Daniel**. A rule induction attribution selection algorithm for intrusion detection systems. *International Journal of Technology and Management*, volume 4, pages 14–14, 2019.

In Conference Proceedings

- 2026 **Ogenrwot, Daniel**, John Businge, and Shaikh Arifuzzaman. Structural and connectivity patterns in the maven central software dependency network. In Nick Rahimi, Venkat Margapuri, and Noor Amiri Golilarz, editors, *Software and Data Engineering*, pages 129–151, Cham, 2026. Springer Nature Switzerland.
- 2026 Richard Sserunjogi, **Ogenrwot, Daniel**, Nicholas Niwamanya, Noah Nsimbe, Martin Bbaale, Benjamin Ssempala, Noble Mutabazi, Raja Fidel Wabinyai, Deo Okure, and Engineer Bainomugisha. Design and evaluation of a scalable data pipeline for ai-driven air quality monitoring in low-resource settings. In Nick Rahimi, Venkat Margapuri, and Noor Amiri Golilarz, editors, *Software and Data Engineering*, pages 212–231, Cham, 2026. Springer Nature Switzerland.
- 2025 **Ogenrwot, Daniel** and John Businge. Refactoring-aware patch integration across structurally divergent java forks. In *2025 IEEE International Conference on Source Code Analysis & Manipulation (SCAM)*, pages 25–36, 2025. **Distinguished Artifact Award**.
- 2024 **Ogenrwot, Daniel** and John Businge. Patchtrack: Analyzing chatgpt's impact on software patch decision-making in pull requests. In *Proceedings of the 39th IEEE/ACM International Conference on Automated Software Engineering, ASE '24*, page 2480–2481, New York, NY, USA, 2024. Association for Computing Machinery.
- 2024 **Daniel Ogenrwot**, Joyce Nakatumba-Nabende, John Businge, and Michel R. V. Chaudron. Empirical investigation of the relationship between design smells and role stereotypes. 2024.

- 2023 Deo Okure, **Ogenrwot, Daniel**, Noah Nsimbe, Lillian Muyama, Priscilla Adong, Richard Sserunjogi, Martin Bbaale, and Engineer Bainomugisha. Data management in resource-limited settings: Unpacking the role of robust digital solutions for air quality data management in african cities. 2023.
- 2022 **Ogenrwot, Daniel**, Geoffrey Olok Tabo, Kevin Aber, and Joyce Nakatumba-Nabende. From undergraduate (software) capstone projects to start-ups: Challenges and opportunities in higher institutions of learning. In *Proceedings of the Federated Africa and Middle East Conference on Software Engineering, FAMECSE '22*, page 73–82, New York, NY, USA, 2022. Association for Computing Machinery.
- 2022 Deo Okure, Engineer Bainomugisha, **Ogenrwot, Daniel**, Richard Sserunjogi, Priscah Adrine, Gabriel Okello, Priscilla Adong, Martin Bbaale, and Joel Ssematimba. Building an africa-focused framework for air quality management: The role of low-cost sensors and digital platforms for effective data management and engagement for action. In *Fall Meeting 2022*. AGU, 2022.
- 2022 Priscilla Adong, Deo Okure, Noah Nsimbe, Joseph Odur, Joel Ssematimba, Richard Sserunjogi, Deo Okedi, **Ogenrwot, Daniel**, Martin Bbaale, Michael Smith, et al. Sensor calibration to enhance large-scale low-cost air quality monitoring in sub-saharan africa. In *Fall Meeting 2022*. AGU, 2022.
- 2020 **Ogenrwot, Daniel**, Joyce Nakatumba-Nabende, and Michel RV Chaudron. Comparison of occurrence of design smells in desktop and mobile applications. In *ACSE*, 2020.

Reports & Thesis & Dissertations

- 2020 **Ogenrwot, D.**, (2021). Using machine learning to understand the association of design smells with role-stereotypes in software systems. *MSc. Computer Science Thesis*, Makerere University, Kampala, Uganda.
- 2013 **Ogenrwot, D., Drani, A., Wandarah, C. & Odong, M.**, (2013). Contextually and geographically relevant ads placement system. *BSc. Computer Science Project Report*, Gulu University, Gulu, Uganda.

Presentations

Conference Presentations

- 2025 **Refactoring-Aware Patch Integration Across Structurally Divergent Java Forks**, *The University of Auckland, New Zealand*.
The 25th IEEE International Conference on Source Code Analysis and Manipulation (SCAM)
- 2025 **Structural and Connectivity Patterns in the Maven Central Software Dependency Network**, *Holiday Inn Downtown Superdome, New Orleans, Louisiana, USA*.
The 34th International Conference on Software Engineering and Data Engineering (SEDE)
- 2025 **Design and Evaluation of a Scalable Data Pipeline for AI-Driven Air Quality Monitoring in Low-Resource Settings**, *Holiday Inn Downtown Superdome, New Orleans, Louisiana, USA*.
The 34th International Conference on Software Engineering and Data Engineering (SEDE)
- 2024 **PatchTrack: Analyzing ChatGPT's Impact on Software Patch Decision-Making in Pull Requests**, *Sacramento, California, USA*.
The 39th IEEE/ACM International Conference on Automated Software Engineering (ASE)
- 2023 **Data management in resource-limited settings: Unpacking the role of robust digital solutions for air quality data management in African cities**, *Austria Center, Vienna, Austria*.
The 2023 European Geosciences Union Assembly (EGU'23)

Invited Talks

- 2020 **Topic: Introduction to Machine Learning**, *Google DevFast, Gulu Chapter, Uganda*.

Teaching

Teaching Assistantship at University of Nevada, Las Vegas, U.S.A

2023

Fall/Spring: CS472/672-1001 Software Product Development I, *Enrollment: 80.*
Undergraduate Senior Design

2023

Summer: CS477/677 Design and Analysis of Algorithms, *Enrollment: 30.*
Undergraduate/Graduate

2024

Fall/Spring: C472/672-1001/1002 Software Product Development I, *Enrollment: 60/45.*
Undergraduate Senior Design

2024

Spring: CS472/672-1002 Software Product Development I, *Enrollment: 50.*
Undergraduate Senior Design

2025

Fall: CS472/672-1001/1002 Software Product Development I, *Enrollment: 25/40.*
Undergraduate Senior Design

2025

Fall: CS789 - Software Re-engineering, *Enrollment: 13*, Advanced Topics in Computer Science.
Graduate Level

Teaching at Gulu University, Gulu City, Uganda

2022

Instructor.

- MID7104 Database Modeling - Graduate
- MID7109 Mobile Applications Development - Graduate
- GCS3203 Parallel Computation
- GIT3104 Integrative Programming
- GIT3101 Web Systems & Technologies II
- GCS3204 Mobile Application Development in Java
- GCS3102 Mobile Web Application Development
- GAT3201 Web Game Development

2021

Instructor.

- MID7104 Database Modeling - Graduate
- MID7109 Mobile Applications Development - Graduate
- GCS3203 Parallel Computation
- GIT3104 Integrative Programming
- GIT3101 Web Systems & Technologies II
- GCS3204 Mobile Application Development in Java
- GCS3102 Mobile Web Application Development

2019

Instructor.

- MID7104 Database Modeling - Graduate
- GIT3104 Integrative Programming
- GIT3101 Web Systems & Technologies II
- GCS3204 Mobile Application Development in Java
- GCS3102 Mobile Web Application Development

2018

Instructor.

- GIT3101 Web Systems & Technologies II
- GCS3204 Mobile Application Development in Java
- GCS3102 Mobile Application Development

Supervision and Mentorship

Graduate Research

2025

Grant Katureebe, *Master of Science in Information and Communication Technology for Development (ICT4D)*, Gulu University, Research Topic: Designing a Low-Cost Multimodal Internet of Things Sensor Network for Hyperlocal Air Quality Monitoring in Uganda: A Case Study of Gulu City.

Status: Ongoing

Ungraduate (Group) Capstone Projects

2022

Kiiza Trevour; Kansiime Kenneth; Oketch Edward, *BSc. Computer Science / Bachelor of Information and Communication Technology*, **Project:** TraceX: A Mobile Application for Verifying the Authenticity and Originality of ICT Products.

Status: Completed

2022

Brian Okwairwoth Ojuk, Vivian Akot, Wilber Asiime, *BSc. Computer Science / Bachelor of Information and Communication Technology*, **Project:** Medicine Authentication System.

Status: Completed

2021

Alinda Fortunate, Mahirwe Jovile, Mujunante Wensi, *BSc. Computer Science / Bachelor of Information and Communication Technology*, **Project:** Smart Soil Analyzer.

Status: Completed

2021

Onen Geoffrey, Ayura Florence, Sebaggala Herbert, *BSc. Computer Science / Bachelor of Information and Communication Technology*, **Project:** Smart Fish Pond Monitoring System.

Status: Completed

2021

Ochola Samuel, Anek Diana, Obalim Douglas Francis, *BSc. Computer Science / Bachelor of Information and Communication Technology*, **Project:** Automated Android Hardcopy Document Digitizer (AHDD) Application.

Status: Completed

Professional Services

PC Member

- Junior PC Member at the 23rd International Mining Software Repositories Conference

Journal Reviewer

- Springer Nature Scientific Reports
- Data in Brief Elsevier Journal
- Journal of Advances in Information Technology

Academic Membership

- ACM
- IEEE
- The United States Research Software Engineer Association (US-RSE)

Referees

Dr. John Businge

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✉ joyce.nabende@gu.ac.ug

Prof. Dr. Michel R.V. Chaudron

*Professor, Department of
Mathematics & Computer Science*
Eindhoven University of Technology, Netherlands
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✉ m.r.v.chaudron@tue.nl

Dr. Benedict Oyo

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Computer Science*
Gulu University, Uganda
☎ +256 (787) 067441
✉ b.oyo@gu.ac.ug