

Joreen Arigye

jorynearigye@gmail.com

jarigye@purdue.edu

linkedin.com/joreen-arigye/

jarigye.github.io/

RESEARCH INTERESTS

Engineering and Computing Education, Education Technology and Innovation, Higher Education

EDUCATION

- **Purdue University** West Lafayette, IN, USA
PhD in Engineering Education, Advisor: Prof. Alejandra J. Magana Aug. 2021 – Present
- **Carnegie Mellon University** Kigali, Rwanda
Master of Science, Information Technology Aug. 2017 – Dec 2018
- **Makerere University** Kampala, Uganda
Bachelor of Science in Software Engineering Aug. 2010 – Jun 2014

RESEARCH PUBLICATIONS

- **Joreen Arigye**; Joseph A. Lyon, Alejandra Magana, Elsje Pienaar. The Reflective Modeling Practitioner: Promoting reflective practices through computational modeling assignments. In *Educational Technology Research and Development* : Under review
- **Joreen Arigye**; Alejandra Magana, Joseph A. Lyon, and Elsje Pienaar. Biomedical and Agricultural Engineering Undergraduate Students Programming Self-Beliefs and Changes Resulting from Computational Pedagogy. In *American Society of Engineering Education (ASEE) Annual Conference and Exposition* : Submitted
- Yashin Brijmohan; Moses Olayemi, Viyon Dansu, Ifeoluwa Babalola, Yasir Gamielien, Ijeoma Ezika, **Joreen Arigye**, Uchenna Asogwa, Collins N Vaye. African Diaspora Engineering Education Student Experiences at US Universities: A Collaborative Autoethnographic Study. In *World Engineering Education Forum & The Global Engineering Deans Council (WEEF/GEDC) with the African Engineering Education Association* Cape Town, SA. Nov 2022 : Peer Reviewed

WORK EXPERIENCE

- **Graduate Research Assistant** Kampala, Uganda
Carnegie Mellon University Aug 21 - Present
 - **Reference Point- FI and WI Discretionary**: Worked as a part of Reference Point- FI and WI Discretionary, which is a cloud hosted application(MS sharepoint) storing different plan details in the form of topics, maps and content requests at different levels.
- **Data Analyst** Kampala, Uganda
Engie Energy Access Feb 2019 - Jul 2021
 - **Fastfox Agents**: Implemented a new flexible Incentive System in backend for Fastfox Agents' incentives (Monthly, Quarterly etc), along with various other Rubackend API's for the app. Fastfox Agents is an android and ios app for fastfox brokers.
 - **Refactory**: Revamped BroEx feed for the users. Also, implemented various backend API's for the app. BroEx is the largest network of Real Estate Brokers in India having features like News Feed, Auto Match Notification, Property view and search etc.
 - **Tech Stack::** Node.js, PostgreSQL, Redis, RabbitMQ
- **Data Fellow** Kampala, Uganda
Engie Energy Access Feb 2019 - Jul 2021

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- **Tech Stack::** Node.js, PostgreSQL, Redis, RabbitMQ

- **Business Process Analyst** Kampala, Uganda
UMEME *Nov 19 - Jul 2021*
 - **Reference Point- FI and WI Discretionary:** Worked as a part of Reference Point- FI and WI Discretionary, which is a cloud hosted application(MS sharepoint) storing different plan details in the form of topics, maps and content requests at different levels.
- **Software Developer** Kampala, Uganda
Infotronics Business Systems *Nov 19 - Jul 2021*
 - **Reference Point- FI and WI Discretionary:** Worked as a part of Reference Point- FI and WI Discretionary, which is a cloud hosted application(MS sharepoint) storing different plan details in the form of topics, maps and content requests at different levels.
- **Supply Chain Management Apprentice** Kampala, Uganda
Medical Access Uganda Limited *Nov 19 - Jul 2021*
 - **Reference Point- FI and WI Discretionary:** Worked as a part of Reference Point- FI and WI Discretionary, which is a cloud hosted application(MS sharepoint) storing different plan details in the form of topics, maps and content requests at different levels.
- **Software Engineering Intern** Kampala, Uganda
Medical Access Uganda Limited *Nov 19 - Jul 2021*
 - **Reference Point- FI and WI Discretionary:** Worked as a part of Reference Point- FI and WI Discretionary, which is a cloud hosted application(MS sharepoint) storing different plan details in the form of topics, maps and content requests at different levels.

TEACHING EXPERIENCE

- **Python Teacher** Kampala, Uganda
Gifted Education Research and Resource Institute, Purdue University *Nov 19 - Jul 2021*
 - **Reference Point- FI and WI Discretionary:** Worked as a part of Reference Point- FI and WI Discretionary, which is a cloud hosted application(MS sharepoint) storing different plan details in the form of topics, maps and content requests at different levels.
- **Node.js Facilitator** Kampala, Uganda
Refactory, Clarke International University *Nov 19 - Jul 2021*
 - **Reference Point- FI and WI Discretionary:** Worked as a part of Reference Point- FI and WI Discretionary, which is a cloud hosted application(MS sharepoint) storing different plan details in the form of topics, maps and content requests at different levels.
- **Data Analysis Facilitator** Kampala, Uganda
Upskill, The Innovation Village *Nov 19 - Jul 2021*
 - **Reference Point- FI and WI Discretionary:** Worked as a part of Reference Point- FI and WI Discretionary, which is a cloud hosted application(MS sharepoint) storing different plan details in the form of topics, maps and content requests at different levels.
- **Guest Lecturer** Kampala, Uganda
LaunchLab, Stellenbosch University *Nov 19 - Jul 2021*

- **Reference Point- FI and WI Discretionary:** Worked as a part of Reference Point- FI and WI Discretionary, which is a cloud hosted application(MS sharepoint) storing different plan details in the form of topics, maps and content requests at different levels.

- **Graduate Teaching Assistant**
Carnegie Mellon University

Kampala, Uganda
Nov 19 - Jul 2021

- **Reference Point- FI and WI Discretionary:** Worked as a part of Reference Point- FI and WI Discretionary, which is a cloud hosted application(MS sharepoint) storing different plan details in the form of topics, maps and content requests at different levels.

PROJECTS

- **Classification of Trash Based On Recyclability Status (Jan, 2017 – Apr, 2017):** Developed a project (achieving 88% accuracy), whose objective was to take images of a single piece of garbage and classify it into five classes- glass, leather, paper, plastic and metal using Computer Vision(CV) approach and Machine Learning, using Python. Used SIFT for feature extraction, K-means clustering for grouping and SVM for classification)
- **Student and Teacher Attendance Manager:** Developed an android app for taking attendance of both students (by teachers) and teachers (By Admins). Used JAVA and XML with SQLite as database.

ACHIEVEMENTS AND RESPONSIBILITIES

- **Global Leaderboard rank – 87 @ InterviewBit :** Profile -<https://www.interviewbit.com/profile/slrparser>
InterviewBit is a reputed website to test your Data Structures, Algorithms and Coding Skills. I am currently ranked 87 globally, among a pool of more than 2.5 lakh users
- **1st position:** In Blindcoding , TechSpardha(College Technical Fest) (10/2014 – 10/2014). Blindcoding is an annual event where programming questions have to be solved, with computer screen getting turned off every 5 minutes.
- **1st position:** In Humbug , TechSpardha(College Technical Fest) (10/2014 – 10/2014). Humbug is an annual event where programming questions have to be solved in a section and bugs have to found out from a given code, in other section
- **AIR 5934:** In JEE–Mains (05/2013 – 06/2013)
- **AIR 9400:** In JEE–Advanced (05/2013 – 06/2013)

SKILLS

- **Proficient:** Node.js, Javascript, Data Structures and Algorithms, PostgreSQL
- **Comfortable:** Redis, C++, JAVA, HTML, jQuery