Eghonghon-aye Eigbe

BACKGROUND

I am a 4th year PhD candidate at the Algorithmics Group of Delft University of Technology. My current research interest is on developing scheduling algorithms that exist at the intersection of machine learning and optimisation.

EDUCATION

Technische Universiteit Delft, Delft & **Canon Production Printing,** Venlo — *PhD in view*
SEPTEMBER 2020 - PRESENT - PhD in Algorithms for Optimisation.

Technische Universiteit Delft, Delft — *M.Sc Embedded Systems*
SEPTEMBER 2018 - JULY 2020 - ***Cum laude*** (with distinction) under the Software and Networking specialisation with a thesis on **Real-Time Multi-Processor Scheduling** with the Embedded Systems research group (8.5/10).

University of Lagos, Akoka — *B.Sc Electrical and Electronics Engineering*
SEPTEMBER 2011 - OCTOBER 2016 - Departmental best graduating student, First Class Honours (4.91/5.0).

WORK EXPERIENCE

Technische Universiteit Delft, Delft & **Canon Production Printing,** Venlo — *PhD in view*
SEPTEMBER 2020 - PRESENT - Core research on developing scheduling algorithms for flexible manufacturing systems as part of the NWO funded SAM-FMS project in collaboration with Canon Production Printing.

Powerlabs Tech — *Head of Hardware Engineering and Research*
JULY 2023 - PRESENT - Leading the hardware and research teams of a startup building the future of personalized power. Working on the development of a predict and optimise suite of algorithms for sizing and dispatching power sources in the face of an unreliable energy grid. The algorithms form the backbone of our first product, Pai

Fraunhofer Institute for Applied Information Technology FIT, Germany — *Research Intern*
AUGUST 2019 - OCTOBER 2019 - Worked with the co-operation systems research group on experimentally evaluating the behaviour of mmWave equipment and determining its viability as a wireless backhauling solution.

AXA Mansard Insurance, Nigeria — *Data Management Executive*
JANUARY 2018 - AUGUST 2018 - Member of the business transformation team with a target to steer the organisation towards making data driven decisions. Core task was re-engineering the company's data management methodologies with projects on data processing, warehousing and visualisation.

Arnergy Solar Limited, Nigeria — *Junior Engineer*
JANUARY 2017 - DECEMBER 2017 - Gained experience working in a fast paced start-up environment with multi-disciplinary responsibilities. Primary tasks were Energy auditing, solar system simulation and embedded systems design and programming using Yocto and Python.

Chevron Nigeria Limited, Nigeria — *Intern*
JULY 2015 - DECEMBER 2015 - Undergraduate internship with the Electrical and Instrumentation department. Primarily performing power system analysis on the Escravos on-shore oil and gas terminal.

PROFESSIONAL TRAINING

Gurobi Advanced Optimisation Course — *Gurobi*
NOVEMBER 2023 - Intermediate to advanced modeling skills using the Gurobi solver

Machine Learning for Constraint Programming Course — *Association for Constraint Programming*
JULY 2023 - Talks and hands-on sessions on the use of Machine Learning for Constraint Programming.

Optimisation for Machine Learning Course —*Landelijk Netwerk Mathematische Besliskunde (Dutch Network on the Mathematics of Operations Research)*
MARCH 2023 - MAY 2023 -Skills on the role of optimization methods in Machine Learning and vice versa.

Deloitte Future of Energy Business Course — *Deloitte*
NOVEMBER 2023 - DECEMBER 2023 - Understanding the commercial perspective of the energy transition.

PUBLICATIONS

FEBRUARY 2020 - Eghonghon Eigbe, Suhail Nogd, and Mitra Nasri (TUDelft): "**On the Partitioned and Semi-Partitioned Scheduling of Non-preemptive Periodic Tasks upon Multicore Platforms**" at sCalable And PrecIse Timing AnaLysis for multicore platforms (CAPITAL) Workshop, 2020

JUNE 2022 - Eghonghon Eigbe, Bart De Schutter, Mitra Nasri and Neil Yorke-Smith: "**Predictive Maintenance Scheduling in Twice Re-entrant Flow Shops with Due Dates**" at The 15th ICAPS Scheduling and Planning Applications woRKshop (SPARK), 2022

JULY 2022 - Noah Schutte, Kim van den Houten, Eghonghon Eigbe: "**Dynamic Scenario Reduction for Simulation Based Optimization Under Uncertainty**" at The 5th DSO Workshop, IJCAI, 2022

SEPTEMBER 2023 - Eghonghon-Aye Eigbe; Bart De Schutter; Mitra Nasri; Neil Yorke-Smith. "**Sequence- and time-dependent maintenance scheduling in twice re-entrant flow shops**" in IEEE Access, 2023

TBD - Eghonghon-Aye Eigbe; Bart De Schutter; Mitra Nasri; Neil Yorke-Smith. "Decision Diagrams for Flow Shop Scheduling" submitted to EJOR

RESEARCH EXPERIENCE

JULY 2022 - Attended **IJCAI 2022,** accepted IJCAI DSO workshop paper

APRIL 2022 - Attended **ICT Open 2022**, accepted extended abstract

JUNE 2022 - Attended **ICAPS 2022,** accepted ICAPS SPARK workshop paper

JULY 2023 - Poster presentation at ACP summer school

SEPTEMBER 2023 - Published Journal Paper, **IEEE Access**

NOVEMBER 2023 - Attended **BNAIC Conference** 2023

DECEMBER 2023 - Submitted Journal Paper, **EJOR**