Kingsley Etonwana Nweye

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EDUCATION

University of Texas at Austin — Austin, TX, United States
- *Ph.D. - Civil Engineering; GPA: 4.000/4.000* — *Aug 2021 - Dec 2024 (Expected graduation date)*
- *M.S.E. - Civil Engineering; GPA: 4.000/4.000* — *Aug 2019 - Aug 2021*

University of South Carolina — Columbia, SC, United States
- *B.S.E. - Mechanical Engineering; GPA: 3.858/4.000 (Magna Cum Laude)* — *May 2013 - May 2017*

SKILLS SUMMARY

- **Programming**: Bash, Java, LaTeX, MATLAB, Python, SQL, Swift
- **Tools**: AutoCAD, AWS, EnergyPlus, eQUEST, Firebase, Git, Grafana, Inventor, Jira, OpenStudio, Raspberry Pi, WinAM
- **Soft Skills**: Leadership, Public Speaking, Time Management, Writing

EXPERIENCE

Utilities and Energy Management, University of Texas at Austin — Austin, TX, United States
Graduate Research Assistant — *Jan 2020 - Present*
- **University of Texas Energy Hub**: Developed and maintained cloud architecture for the collection, storage and manipulation of data from over 1,000 utility meters and 200 buildings located on the university campus and micro-grid. The data were used to model energy and water consumption for the purposes of demand-side management, fault detection, project planning, billing, business intelligence and reporting. Tech: AWS (Athena, API Gateway, Lambda, QuickSight, RDS PostgreSQL, S3), Bash, Git, Jira, Python.
- **Comfort Kiosk iOS Application**: Developed iPad application for thermal comfort polling to determine occupant indoor environment preferences and optimal HVAC zone set-point schedules. Tech: Google Firebase, Python, Swift.
- **Building Energy Performance Modeling**: Developed and calibrated energy models for the evaluation of energy conservation measures in 3 existing buildings. Tech: WinAM.

Intelligent Environments Laboratory, University of Texas at Austin — Austin, TX, United States
Graduate Research Assistant — *Aug 2019 - Present*
- **Reinforcement Learning for Building Energy Management**: Led the development of CityLearn Gym environment v1.1.0 - present and researched on the use of reinforcement learning control for demand response and grid-interactive building applications. Tech: Bash, EnergyPlus, Git, Grafana, OpenStudio, SQL, Python.
- **Occupant-Centric Control**: Developed cost-effective framework for the estimation of occupancy counts by leveraging existing Wi-Fi infrastructure as well as estimation of energy savings from utilizing occupancy and smart meter data in HVAC equipment ramp-up and setback scheduling. Tech: EnergyPlus, Git, Python, WinAM.
- **Publications**: First-authored 10 poster, conference and journal papers. Tech: LaTeX.
- **Mentorship**: Mentored 4 undergraduate and 2 graduate students in machine learning and building energy modeling projects.

CAEE Department, University of Texas at Austin — Austin, TX, United States
Teaching Assistant; Elementary Mechanics of Fluids Laboratory — *Jan 2021 - May 2021*
- **Tutoring**: Lectured and supervised a class of 30 undergraduate students on experiment procedures and graded laboratory exercises and reports.
- **Evaluation**: Received "very good" or "excellent" overall rating from 80% of responses in an anonymous mid-semester survey that had a 50% return rate.

PROJECTS

- **NEURIPS Competiton Track: The CityLearn Challenge (Supervised Learning, Reinforcement Learning)**: Developed CityLearn environment used in two editions of the challenge on AIcrowd where machine learning solutions were crowd-sourced from over 100 teams to optimize energy, thermal comfort, emissions and resilience objectives in grid-interactive communities. Tech: Git, Python. (Jul 2022 - Present)

AWARDS

- Best Virtual Poster Award at BuildSys 2023 for Heterogenous Multi-Agent Reinforcement Learning for "Grid-Interactive Communities". (Nov 2023)
- Third place in Technical Demonstration category and $5,000 award for "Building Energy Intensity Toolchain" team submission at Real Time Energy Management Global Energy and Building Hackathon by New York State Energy Research Development Agency. (Jul 2022)

ACTIVITIES

Graduate Student Guest Editor of IET Renewable Power Generation Journal — Remote
Selected reviewers and managed peer-review process for submissions to journal's special issue. — *May 2023 - Present*

Web Chair of ACM SIGEnergy RLEM Workshop — Virtual
Designed and maintained workshop website using a Jekyll and GitHub Actions workflow. — *Nov 2022 - Present*

Web Chair of ACM SIGEnergy BuildSys Conference — Istanbul, Turkiye
Designed and maintained conference website using a Jekyll and GitHub Actions workflow. — *Jan 2023 - Dec 2023*

Co-President of TexASHRAE — Austin, TX, United States
Facilitated networking opportunities between local MEP professionals and students. — *Aug 2021 - Aug 2023*

INTERESTS AND HOBBIES

- DJ'ing, Flight simulator, LEGO, Paintball, Running, Soccer, Weightlifting.