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.