

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 - Present
 - M.S.E. - Civil Engineering; GPA: 4.000/4.000* Aug 2019 - Aug 2021
 - Courses: Data Mining, Energy Simulation in Building Design, HVAC Design, Smart Buildings & Cities, Sustainable Building Design*
- 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
 - Courses: Algorithmic Design, Engineering Optimization, Engineering Ethics, Fluid Mechanics, Heat Transfer, Thermodynamics*

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 5 of 8 peer-reviewed full and poster papers. Tech: \LaTeX .
 - **Mentorship:** Mentored 3 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 - May 2021
 - **Lecturing:** 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’22 CityLearn Challenge 2022 (Reinforcement Learning, Net-Zero Energy Buildings):** Developed the CityLearn Gym environment v1.3.x used in the AICrowd-hosted challenge where over 100 teams developed control policies for the management of battery charge/discharge to minimize electricity bill, carbon emissions and grid load ramping. Tech: Git, Python. (Jul 2022 - Present)
- **Intelligent Environments Laboratory COVID-19 Dashboard (Data Management, Analysis, Visualization):** Designed and deployed a media-featured dashboard that provided a multifaceted view of the COVID-19 impact in Austin, TX using open-source and private public health, economic, transportation, air quality, energy, water and social data. Tech: Git, Python. (Mar 2020 - Present)

AWARDS

- 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

- **Co-President of TexASHRAE** Austin, TX, United States
 - Facilitated networking opportunities between local MEP professionals and students.* Aug 2021 - Present
- **Webmaster of ACM SIGEnergy RLEM Workshop** Virtual
 - Designed and maintained workshop website using a Jekyll and GitHub Actions workflow.* Nov 2022 - Present

INTERESTS AND HOBBIES

- DJ’ing, LEGO, Paintball, Running, Soccer, Weightlifting.