Kingsley Etonwana Nweye

Website: kingsleynweye.com

Email: nweye@utexas.edu
Mobile: +1-512-590-0836

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

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

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, LEGO, Paintball, Running, Soccer, Weightlifting.