NURSULTAN YERKEN

+974-5173-7710 | nuye69018@hbku.edu.qa | linkedin

EDUCATION

HAMAD BIN KHALIFA UNIVERSITY — Doha, State of Qatar
Bachelor of Science in Mechanical Engineering — *Aug 2024 - May 2028*
Honours: Dean's Honours List Awardee, WOQOD's 10,000$ Grant Awardee
Clubs: Carnegie Consulting Club, Society of Petroleum Engineers, TAMUQ Shell Eco-Marathon
Relevant Coursework: Statics, Thermodynamics, Measurements & Instrumentation, Principles of Electrical Engineering

EXPERIENCE

TEXAS A&M UNIVERSITY AT QATAR — Doha, State of Qatar
Shell Eco-marathon, Body-Chassis Unit Member — *Mar 2025 - Jan 2026*

- Led design and optimization of a high-strength tubular chassis in SOLIDWORKS, validating load performance via Finite Element Analysis and improving stiffness by 25%.
- Engineered and installed hydraulic handbrake, Ackermann steering, and disc brake assemblies, delivering 15% better control stability under dynamic tests.
- Proposed and developed new bulkhead and wheelhouse structures from scratch, meeting stress requirements and reducing component mass by 10%.

QATAR ENVIRONMENT & ENERGY RESEARCH INSTITUTE — Doha, State of Qatar
Mechanical Engineering Intern — *Jun 2025 - Aug 2025*

- Built a Python pipeline for 3,000+ battery cycles, automating metrics and reducing analysis time by 60%.
- Benchmarked 8 Machine Learning models for State of Health/Charge, achieving R^2=0.92 on unseen cells after tuning.
- Co-authored 2 publications, demonstrating data-leakage issues in random splits and validating 4-fold GroupKFold for robust generalization, thereby publishing two conference papers in IEEE journal.

NEFTESTROISERVICE LTD — Atyrau, Kazakhstan
Field Engineer Intern — *May 2025 - Jun 2025*

- Responded to 30+ on-site construction and operations requests, conducting well-pad inspections and capturing 150+ pressure/temperature diagnostics, improving reporting accuracy by 20%.
- Liaised daily with engineers and subcontractor teams to sequence work packs and coordinate parallel activities, reducing workflow bottlenecks and punch-list delays by 25% across active production sites.
- Identified and escalated 15+ critical equipment non-conformities (leaks, gauge anomalies, pressure deviations), coordinating corrective work orders that prevented an estimated 10+ hours of operational downtime.

HAMAD BIN KHALIFA UNIVERSITY — Doha, State of Qatar
Research Assistant under Dr. Hasan Kurban — *Dec 2024 - Jan 2025*

- Spearheaded pulsar classification using a Kolmogorov-Arnold Network, reaching 98.5% classification accuracy and extracting 4 symbolic formulas.
- Independently conducted advanced feature engineering (KDE, Permutation Entropy) to shrink data noise by 15% and uncover complex patterns, leading to a 92% improvement in predictive feature selection.
- Transformed raw image data into numerical representations, decreasing model training time by 40%.

PROJECTS

INVENT FOR THE PLANET | SOLIDWORKS (FEA, Motion), Python

- Initiated and drove technical development of a modular biodegradable carbon-capture cell in SOLIDWORKS, cutting projected manufacturing cost from $150 to $10 per m^2.
- Directed a cross-disciplinary team of 3 Texas A&M engineering students in a 48-hour design sprint to produce tested design iterations and deliver a final prototype.
- Developed a sensor-enabled, hook-based detachment system, which cut cell replacement time by 40% in large-surface deployments while also minimizing disruption to ongoing operations.

QUALIFICATIONS

Languages: English (Fluent), Russian (Native), Kazakh (Native), Arabic (B1 level)
Technical Skills*:* SolidWorks, Ansys Fluent, Python, Office Suite, LaTeX
Certifications*:* SOLIDWORKS Certified Professional, Complete Python Mastery, Globally Harmonized System Safety