



# 2024 Engineering Capstone Design Expo

Computer Science

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Engineering Physics

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Kendall Cram 213

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Biomedical Engineering

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- 20
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Qatar Ballroom

212

Society of Women Engineers

5

Bernhard

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Chemical Engineering

36

## **BIOMEDICAL ENGINEERING**

1. ThroTek
2. AdaptFit
3. New Assistive Resources for Compliance in Physical Therapy (NARC-PT)
4. VerteVision: 3D Computation of Spine Deformities
5. Cranial Caretakers
6. Crack'd Innovations

## **PHYSICS AND ENGINEERING PHYSICS**

7. Lakeview Flooding Mitigation and City Park Transformation
8. Tulane MicroMouse
9. Flower Power
10. Moiré: Mesh Network Measurement Sensors
11. S.P.I.D.E.R: South Pole Ice Drilling and Exploration Rover

## **CHEMICAL AND BIOMOLECULAR ENGINEERING**

12. An Environmental Approach to Reducing Flare Emissions During Ethylene Production
13. Comparing B504 Extender to D239 Extender Performance in Cement Mixtures
14. Extraction of Acetoin from Fermentation Broth

# COMPUTER SCIENCE

15. 3D Go
16. Language Model Enhanced Video Game
17. Evaluating the Trustworthiness of Retrieval Augmented Generation Models for Civic Engagement and Transparency
18. HomeRun App
19. Determining if Spiking Neural Networks have a Greater Capacity to Resist Perturbations to Sensory Data in Image Classification Tasks
20. The Fuzz: Fuzzing Vulnerabilities with American Fuzzy Lop Fuzzer
21. Virtual Reality Hurricane Preparedness and Response Training
22. MultiVision Imager
23. Tulane MicroMouse
24. Hidden Activity Signal and Trajectory Anomaly Characterization (HAYSTAC)
25. CogniSync: Machine Learning & EEG-based Directional Controls
26. BlightWatch NOLA
27. User-Friendly Interface for Single-Cell RNA Sequencing Analysis
28. Rexchange – Machine Learning and the New Orleans Real Estate
29. Enhancing Trust in AI: Deepfake Detection and Interpretation through Advanced Machine Learning Models
30. Predicting Stock Volatility with High-Frequency Market Data
31. Flower Power
32. The Madness of March
33. College Compass
34. Moiré: Long Range Sensor Network for Reforestation Monitoring
35. Computational Epitope Prediction
36. Predicting Bond Amounts in Orleans Magistrate Court