

Energy Data Analytics



Data-Driven Energy Efficiency for Manufacturing, Commercial, and Residential Buildings

- Data Logging (~1,000 data loggers valued ~ \$350,000)
- In-house Software Packages
- Puerto Rico Satellite Center (2016 Present)
- Multiple Research Projects
- Estimated Energy Saving of 10%-15%









LJ 100 **UNIVERSITY OF MIAMI**

Graph Sensor Data Analytics

College of Engineering



Graph Neural Network Recurrent Neural Network Graph Theory Bayesian Modeling



Fuse













Sensor-Driven Reliability Modeling

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Fault Detection from Image+Graph Data

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Non-Intrusive Power Pattern Recognition

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- **AI-Driven Load Signature Extraction** •
- **Edge-Cloud Collaborative Analytics** ullet
- Adaptive Pattern Recognition with Self-Learning Systems ullet









