

SICONG HUANG

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🔗 [Innoversa](https://www.innoversa.com)

EDUCATION

Texas A&M University

Jun 2021 – May 2025

Doctor of Philosophy - Computer Science

College Station, TX

Texas A&M University

Aug 2017 – May 2021

Bachelor of Science - Computer Science; Minor - Cybersecurity

College Station, TX

PUBLICATION

- **Sicong Huang**, Roozbeh Jafari, Bobak Mortazavi, *ArterialNet: Arterial Blood Pressure Reconstruction*, IEEE BHI'23 (Acceptance Rate: **24.5%**)
- Lida Zhang, **Sicong Huang**, Anurag Das, Edmund Do, Namino Glantz, Wendy Bevier, Rony Santiago, David Kerr, Ricardo Gutierrez-Osuna, and Bobak J. Mortazavi, *Joint Embedding of Food Photographs and Blood Glucose for Improved Calorie Estimation*, IEEE BHI'23 (Acceptance Rate: **24.5%**)

INVITED TALKS

Research Experience for Undergraduates ☞ | Texas A&M University

Jul 2023

- Towards automatic diet monitoring, Tutorial on Macronutrient Estimation with Machine Learning

AWARDS

SAE/GM AutoDrive Challenge Year 2 Competition ☞ | MCity, Ann Arbor, MI

May 2019

- Third Place in Overall Competition

SAE/GM AutoDrive Challenge Year 1 Competition ☞ | Yuma, AZ

May 2018

- **First Place** in Object Detection & Avoidance, Second Place in Overall Competition

RESEARCH EXPERIENCE

STMI Lab ☞ | Graduate Research Assistant | Advisor: Dr. Bobak Mortazavi

Jun 2021 – present

- ***Innovating remote health solutions with machine learning (ML) and wearable sensors***
Deployed end-to-end pipeline for continuous and noninvasive blood pressure monitoring
Deployed an accurate calorie prediction model for automated diet monitoring and glucose management
Collaborated with the hospital to design IRB protocols for automatic cardiac rehabilitation monitoring
Admin of lab workstations and manager of inventory and website
Advised 4 undergraduate students across two research projects

STMI Lab ☞ | Undergraduate Research Assistant | Advisor: Dr. Bobak Mortazavi

Aug 2020 – May 2021

- ***Innovating automatic diet monitoring with ML and wearable sensors***
Designed collection pipeline for a trial of 50+ participants using both off-the-shelf and self-developed methods
Developed personalized nutrition intake model to predict macronutrient decomposition
Implemented a multi-modal prediction framework by incorporating time-series CGM readings and food images
- ***Analyzing Twitter User Sentiments***
Processed text embedding from over 250,000 tweets and Generated 1000 NLP features with NLTK
Examined and validated the framework against various Baseline methods (LSTM, XGBoost, Random Forest, SVM, etc.)

WORK EXPERIENCE

Nuvenu LLC (Tech Startup) ☞ | DB Admin and Software Engineer | Supervisor: Juan Vasquez ☞

Jun 2021 – present

- ***Connecting local customers and businesses across restaurants, bars, theatres, etc.***
Architected and Implemented a cloud graph database to store user interactions with businesses using Neo4j
Wrote RESTful APIs using .NET Core to enable CRUD via HTTP requests following MVC and Agile development practice
Managed the project with Azure DevOps and deployed the website and database on Azure

TECHNICAL SKILLS

Languages: Python, MATLAB, LaTeX, R, C++, Java, C#, JavaScript, SQL, Cypher, JMP
Tools/Packages: Pytorch, Sklearn, Weights&Bias, React, TF/Keras, Spark, matplotlib, seaborn
Technologies/Frameworks: Linux, Version Control, .NET, CI/CD, Scrum/Agile, Cloud Computing