Yanan Wang

☎ (+1) 984-292-9550 • ✉ ywang257@ncsu.edu • 🏠 235 W Van Buren St, Chicago, IL 60607
 GitHub • LinkedIn • Personal Website

EDUCATION

Georgia Institute of Technology   Remote
Master of Computer Science (GPA 4.0/4.0)   Est. December 2022
Courses: Software Development Process, Software Architecture and Design, Database Systems Concepts and Design, Computer Networks, Probability and Mathematical Statistics, Web Development

North Carolina State University   Raleigh, NC
Ph.D. in Computational Materials   December 2021

SKILL

Programming Languages: Python, Java, JavaScript, Dart, SQL, NoSQL

Tools and Framework: Bootstrap, React, jQuery, EJS, Express.js, Spring Boot, Spring Security, Maven, RESTful APIs, MySQL, SQLite, MongoDB, Android Development, Flutter Development, JUnit Testing, Git, Docker, Linux, Machine Learning, Neural Network, NLP, Selenium, Postman

PREFESSIONAL EXPERIENCE

The Nonwoven Institute (NWI)   Raleigh, NC
Graduate Research Assistant   December 2021
- Setup hardware and software for motor control and real-time sensing data acquisition for high sampling rate (>1K Hz), consistency and reproducibility
- Built theoretical and machine-learning based models in Python to reveal device's structure-performance correlation
- Showcased progress to Industrial Advisory Board (IAB) and other stakeholders quarterly and feedback collection

SELECTED PROJECTS

Grocery Express Service   November 2021
(Java • Spring Boot • Maven • Spring Security • JWT • RESTful •Spring Data JPA • MySQL • UML • Postman • IntelliJ • Git)
- Systems designed and visualized with the help of Unified Modeling Language (UML); project management, task assignment and code review conducted in Git issues
- Spring Security with JWT applied to achieve authentication and role-based access control for future distributed system
- Core functionalities and RESTful APIs in Spring Boot framework implemented and tested with Postman

Job offers Comparison Android App   September 2021
(Java • SQLite • JUnit • Android Studio • Git)
- Developed an Android App to reduce the subject bias on job offer comparison
- Implemented UIs and functionalities (e.g., enter/edit job offers, adjust settings, rank job offers, compare offers)
- Persisted data with SQLite and tested functionalities

Personal Blog Web Application   August 2021
(Bootstrap • JavaScript • Node.js • Express.js • npm • ejs • MongoDB • Mongoose • WebStorm • Git)
- Built research blog web application for research group to internally share research ideas, for use by 10 collogues
- Persisted data to MongoDB Atlas using mongoose; deployed application on Heroku

Modeling the Triboelectric Behaviors of Elastomeric Nonwoven Fabrics (published in TOP Journal)   June 2021
(Python • SciPy • Pandas • NumPy • Machine Learning algorithms • Jupiter Notebook • Google Colab)
- Testing reproducibility increased by 1200% through optimizing the testing protocol and measurement platform
- Revealed device's structure-performance correlation by establishing a pioneering analytical model with high prediction power ($MAPE_{validiating} = 5.72\%$) in Python
- Recognized as top 5% in the Computational Materials research field by reviewers

SELECTED PUBLICATION

Wang, Yanan, et al. "Modeling the Triboelectric Behaviors of Elastomeric Nonwoven Fabrics." Advanced Materials (2021): 2106429 (IF=30.8)