Yanan Wang

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🐙 GitHub • 💼 LinkedIn • 🗔 Personal Website

EDUCATION

Georgia Institute of Technology   Online
Master of Computer Science (GPA 4.0/4.0)   Expected: December 2022
Selected 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: HTML, CSS, Bootstrap, 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, Web Automation with Selenium, IntelliJ, Android Studio, WebStorm, Atom, Postman

Languages: Chinese (native speaker), English (proficient) and French (beginner)

PREFESSIONAL EXPERIENCE

The Nonwoven Institute (NWI), Raleigh, NC
Graduate Research Assistant, 08/2018-08/2021
- Setup hardware and software for motor control and real-time sensing data acquisition
- 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 regularly and feedback collection

SELECTED PROJECTS

Grocery Express Service
(Java • Spring Boot • Maven • Spring Security • JWT • RESTful •Spring Data JPA • MySQL • UML • Postman • IntelliJ • Git)
- Implemented core functionalities and RESTful APIs in Spring Boot framework
- Persisted data to MySQL using Spring Data at Data Access Layer
- Achieved authentication and role-based access control to Grocery Express Service through Spring Security and JWT
- Tested all functionalities/RESTful APIs with Postman

Job offers Comparison Android App
(Java • SQLite • JUnit • Android Studio • Git)
- Implemented UIs and functionalities (e.g., enter/edit job offers, adjust comparison settings, rank job offers, compare offers, compare selected job offers)
- Persisted data with SQLite and tested functionalities

Personal Blog Web Application
(HTML • CSS • Bootstrap • JavaScript • Node.js • Express.js • npm • ejs • MongoDB • Mongoose • WebStorm • Git)
- Implement frontend and backend server using HTML, CSS, Bootstrap, ejs, JavaScript, Node.js and express.js
- Persisted data to MongoDB Atlas using mongoose and deployed application on Heroku

Modeling the Triboelectric Behaviors of Elastomeric Nonwoven Fabrics (published in TOP Journal)
(Python • SciPy • Pandas • NumPy •Machine Learning algorithms • Jupiter Notebook • Google Colab)
- Developed a pioneering analytical model with excellent prediction capabilities ($MAPE_{validiating} = 5.72\%$)
- Verified model generalization by cross-validation and random-split resampling techniques
- Provided a practical guidance for researchers based on simulation results

SELECTED PUBLICATION

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