

# Yueyan Pang

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## EDUCATION

Beijing University of Technology

Sept. 2020 - July 2024 (expected)

**BEng Software Engineering**

- **GPA:** 3.73/4.00 (88.07/100)
- **Relevant Courses:** Advanced Software Developing Technology for Embedded System (96), Technologies and Applications of Internet of Things (98), Computer Vision (93), Design and Analysis of Algorithms (86), Data Mining (95), An Introduction of Big Data Technologies (92), Software Requirement Analysis and Modeling (92)

## ACADEMIC EXPERIENCE

Intelligence Engineering Lab

July 2023 – Sept. 2023

*Research Intern (supervisor: Prof. Teng Han, Institute of Software, Chinese Academy of Sciences) Beijing, China*

**ElectroClick: Enhancing Button Experiences on Surfaces with Force-Coupled Electrotactile Sensations (Submitted to CHI 2024)**

This project presented a novel approach to emulate virtual buttons using electrotactile methods. The project's adaptability across different platforms, encompassing mouse, touchscreen, and VR/AR environments, underscores its potential significance in enhancing user interfaces and interaction experiences.

- Utilized Electrotactile Stimulation to simulate surface buttons, adjusting various parameters to emulate different tactile sensations.
- Built a Unity experimental platform and conducted laboratory experiments to collect data.
- Calculated the just noticeable difference (JND) for each perceptual dimension of electrotactile under different button-click phases.
- Performed quantitative data analysis and data visualization in Python and SPSS.

Intelligence Engineering Lab

July 2022 – Oct. 2022

*Research Intern (supervisor: Prof. Teng Han, Institute of Software, Chinese Academy of Sciences) Beijing, China*

- Engineered flexible actuators based on magnetically actuated, pneumatic drive and electrohydraulic.
- Executed 3D modeling and printing, using chemicals to make flexible wearable devices with electrohydraulic and pneumatic. Controlled microfluidics and microforce sensors to quantitatively analyze the pressure generated by thin-film actuators.
- Conducted quantitative evaluations on actuators utilizing various drive technologies, iteratively refining equipment for enhanced performance.

## PROJECT EXPERIENCE

**HRV Psychoanalysis and Rehabilitation System based on Wearable Computing**

The system gathers ECG signals via wearables to calculate HRV data and introduces a unique game interaction approach by controlling Unity racing games through HRV data for psychological rehabilitation.

- Integrated the open-source dataset YAAD and implemented ResNet18 to learn from emotion annotation features labels in ECG and GSR data.
- Developed a Unity-based racing game that utilizes the anxiety index from the psychoanalysis system to dynamically control the racing speed.

**"Smile": Micro Campus Community based on WeChat Mini Program**

- Designed product prototype layouts using Figma and actively engaged in front-end development.
- Contributed to the development of the ChatGML interface call (Tsinghua University's open source NLP model),

implementing question-and-answer interaction between users and AI within the App.

- The cumulative number of users has exceeded 5000.

## SKILLS

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**Programming:** Python, JAVA, C/C++, JavaScript, CSS/HTML, R

**Research Methods:** Survey, Interviews, Usability Testing

## EXTRACURRICULAR ACTIVITIES

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### Volunteer club member

- Established compassionate one-on-one companionships with autistic individuals, fostering verbal communication and engaging in collaborative sports activities.
- Conducted volunteer teaching activities for underprivileged children in mountainous regions, delivering music and physical education classes.

## HONORS AND AWARDS

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### Scholarship

- Academic Excellence Award, BJUT (ranking 3%) Oct. 2023
- Excellence Student Cadre, Faculty of Information Technology, BJUT Oct. 2023

### Competition

- The Second Prize in North China Division in the 2023 HUAWEI CUP National Undergraduate IoT Design Contest
- The Third Prize in Preliminary Round in the 9th China International College Students 'Internet+' Innovation and Entrepreneurship Competition
- The Second Prize in Final Contest in the 2023 (16th) Chinese Collegiate Computing Competition
- The Second Prize in Final Contest in the 2022 HUAWEI CUP National Undergraduate IoT Design Contest