Bingcheng Hu

+86-132 6276 4136 Shanghai, China bingcheng@nyu.edu https://bingcheng.openmc.cn

EDUCATION

New York University New York, USA
M.S. in Computer Engineering Aug. 2020 – Present

Shanghai Jiao Tong University Shanghai, China
B.S. in Electrical and Computer Engineering (Major) **Last Two years GPA:** 3.5/4.0 Sept. 2016 – Aug. 2020
Data Science (Minor) **GPA**: 3.5/4.0 Sept. 2018 – Aug. 2020

Sophia University Tokyo, Japan
Winter Term Exchange Program **GPA:** 3.67/4.0 Feb. 2018 – Mar. 2018

PUBLICATIONS

- **B.C. Hu**, T, D., Y, P., M, Z., and Q, Y. (2020). " Flexible and attachable inertial measurement unit (IMU)-based motion capture instrumentation for the characterization of hand kinematics: a pilot study " *Instrumentation Science & Technology*, DOI: 10.1080/10739149.2020.1789657
- Y, P., X, S., L, L., **B.C. Hu**, and M, Z. (2019). " Hand Kinematics in Badminton Based on Smart Glove and Visualization Technology." *Instrumentation Science & Technology*, DOI: 10.1080/10739149.2020.1737814

EMPLOYMENT HISTORY

- ***Shanghai Feili Xuncheng Electrical Technology Co. Ltd.*** - *Intern* Dec. 2020 – May. 2021

- Developed the backend service of vibration monitor with Node, Express, and MongoDB, and the frontend with Angular
- Trained a Machine Learning model to predict the state of the motor based on the frequency spectrum of the vibration

RESEARCH EXPERIENCES

- ***Collaborative Information Systems Lab - Shanghai Jiao Tong University, Prof. Cao*** Shanghai, China

Project II: Research on Sentiment Analysis and Work Efficiency based on GitHub Mar. 2019 – Jan. 2020

- Built a crawler to pull requests from the Ruby community on GitHub and saved data in SQL database
- Analyzed the impact of sentiment consistency on the collaboration efficiency among developers

Project I: Recommender System Design based on Machine Learning - *Team leader* Oct. 2018 – Jan. 2020

- Designed a web crawler and crawled all the data on the OpenML website
- Trained the data and created a tag-based recommender system

- ***Department of Physical Education and Sports Science - Zhejiang University, Prof. Peng*** Hangzhou, China

Gesture Sensor with Six-Axis Gyro Control Design - *Research Assistant* Jan. 2018 – May 2018

- Proposed IMU-based motion capture system, designed PCB boards with Altium
- Soldered and wired the device, manufactured a 3D printed shell with Solidworks
- Coded in C++ and Java for 3000+ lines to acquire, transmit, and post-process data

SELECTED PROJECTS EXPERIENCES

- ***Course: App Development for Entrepreneurs*** - *Team Member*

Designed and implemented health monitoring APP for Covid-19 May. 2020 – Aug. 2020

- Designed sequence diagram based on the user story
- Developed Android APP, capturing the surrounding Bluetooth, and uploaded the data to the database
- Wrote a server to save the Bluetooth UUIDs with SQL, match the UUIDs, and inform the users the risk

- ***Course: Introduction to Computer Organization*** - *Team Leader*

Simulation and Implementation of 32-bit MIPS CPU Sept. 2018 – Dec. 2018

- Modeled both single-cycle and 5-stage pipelined MIPS Architecture CPU in Verilog HDL to process data
- Synthesized the design with Xilinx and implemented the pipelined CPU on FPGA board free of error

- ***SJTU-Company Innovation Practice Program for Undergraduates***-*Team Leader*

Smart Light Bulbs Remote Control APP Design Nov. 2017 - Nov. 2018

- Wrote an Android APP for remote controlling of smart bulbs through the internet
- Add a new controller on APP for controlling the lights to flash synchronously with music.

AWARDS & HORNORS

University Scholarship for Merit Student, SJTU	Scale: < 5%	2018-2019
University Third Scholarship for Academic Excellency, SJTU	Scale: 20%	Nov. 2019; Nov. 2018
University Academic Improvement Scholarship	Scale: 5%	Nov. 2018
China-US Young Maker Competition (Shanghai) second prize	Scale: 2/30	Sept. 2018
VEX Robot Shanghai Division Selection Competition first prize	Scale: 1/20	Jul. 2018
The 8th University Engineering Comprehensive Ability Competition first prize	Scale: 3/40	June 2018

PROFESSIONAL SKILLS

- Proficient in Python, Java, JavaScript, C/C++; Familiar with R, Verilog HDL, MATLAB, Julia
- Operating System: macOS, iOS, Android, Linux
- Skills: Native in Chinese; Fluent in English; Basic in Japanese