Shuchen Zhao

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EDUCATION BACKGROUND

Duke University   **Durham, NC**
Master of Science in Electrical and Computer Engineering   *Sept. 2018-May. 2020(In progress)*

Nanjing Normal University(NNU)   **Nanjing, China**
Bachelor of Science in Electrical Engineering and Automation   *Sept. 2014-Jun. 2018*

SKILLS

- **Programming skills: C, C++, Java, Python, HTML/CSS, JavaScript, SQL, Matlab**
- **Tools and frameworks: Linux, Git, Angular, Spring, Node.js, Emacs, Android Studio**
- **Non-technical skills:** Chairman of Organization Department, Master of ceremony of Chinese Lunar New Year Gala, Choir member, BeatBox

WORK EXPERIENCES

Software Development Engineer at Duke Hospital   **July. 2019 - Current**
- In charge of developing a full stack web application for Duke Hospital's clinical trial
- Designed front end and back end using Angular + Spring frameworks; designed website presentation utilizing HTML/CSS

Teaching Assistance at Duke University   **June - July. 2019**
- Helped Professor redesign course ECE550: FUND COMP SYSTEM AND ENGINEERING
- Responsible for assignment development, creating lab skeletons, improving lecture slides

PROJECTS

Informed Consent Mobile Application Design (Android, Java), Duke University   **Feb. 2019**
*Audio enhanced informed consent Android mobile App for Duke Clinical Trials with **Agile Process***

- Designed Education, Informed Consent(with automated text reader) and Teach Back Module to offer concise and user friendly way of presenting clinical trial information
- Processed the data provided by our client, set up the database and linked the database to the App

Linux Game Design (C++), Duke University   **Feb. 2019**
Simple implementation of the classic hot potato game using TCP sockets

- Created a **multi-process** application, processed command line arguments, set up and monitored network communication channels between the processes
- Excellent practice of **network programming** and related system calls.

Linux Command Shell implement(C++), Duke University   **Nov. 2018**
Created a mini command shell

- The shell can conduct basic shell functionality like parsing inputs, searching for commands in "PATH", supporting "cd" command, supporting access to variables, etc
- Tested intensively and made the program robust to different kinds of inputs and corner cases and wrote testing documentation to make the program easy to use and test

Optimization for Designing Filters(MATLAB), Chinese Academy of Science   **Aug. 2016**
Optimization of digital filters

- Referred to a wealth of papers for **algorithm** optimization of filters and their performance and simulated digital filters and used different algorithms to optimize their performances
- Published a IEEE conference paper as the first writer

PUBLICATIONS

- Shuchen Zhao, Zhengyang Li, Xin Yun, Keyao Wang, Xin Lyu, Bo Liu, "IIR Filters Designing by Water Wave Optimization", Proceedings of 13th IEEE International Conference on Control and Automation, Ohrid, Macedonia, in July, 2017