



Kexuan (Michael) Huang

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Graduate Student



EDUCATION

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| University of Michigan M.Sc. in Information | 2022.08 - 2024.05 Ann Arbor, MI, U.S. |
| University of Wisconsin-Madison Exchange Student in Computer Science | 2022.01 - 2022.05 Madison, WI, U.S. |
| Shanghai Jiao Tong University B.Eng. in Electrical and Computer Engineering Dual Minor in Computer Science and Entrepreneurship | 2018.09 - 2022.08 Shanghai, China |

INTERNSHIPS

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| Advanced Micro Devices, Inc. (AMD) Design Verification Engineer Intern, dGPU SOC, Shanghai R&D Center <ul style="list-style-type: none">Work on <i>HDL</i> code and waveform simulation to do RTL troubleshooting.Use <i>Python</i>, <i>Shell</i>, <i>Perl</i> & <i>Ruby</i> to code automation scripts and maintain regression flow. Use <i>Pandas</i>, <i>NumPy</i>, and <i>Sklearn</i> to analyze data, use <i>Requests</i> and <i>Regex</i> to scrape website, and use <i>Django</i> to set up team webpage. | 2020.12 - 2021.05 Shanghai, China |
| Segway-Ninebot, Inc. Embedded Software Engineer Intern, IoT R&D Department. <ul style="list-style-type: none">Work on development of autonomous delivery robot, typically in communication & decision-making strategy optimization.Use <i>C</i> to do embedded programming with <i>STM</i> chip, prototype PCB verification and feedback reporting. | 2020.01 - 2020.03 Shanghai, China |
| UM-SJTU Joint Institute, SJTU Teaching Assistant & Research Intern <ul style="list-style-type: none">Hold workshops, grade assignments & exams to help around 100 students in courses VE300 & VE496.Reproduce and optimize high-speed signal-free intersection models from papers in <i>SUMO</i> software with <i>Python</i>. | 2021.05 - 2021.12 Shanghai, China |

PROJECT EXPERIENCE

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| Intelligent firefighting system based on Internet-of-Things technology, Frontend Team Leader Capstone Project, UM-SJTU Joint Institute <ul style="list-style-type: none">Develop an integrated IoT firefighting system to perform fire risk management with greater accuracy, better efficiency and lower cost using FAHP algorithm. The system is deployed on servers of Shanghai fire brigade currently.Implement backend with <i>FastAPI</i>, webpage with <i>React.js</i> and a cross-platform app with <i>React Native</i>. Use <i>MongoDB</i> as database, whose current data-handling quantity is at 7 million. | 2021.07 - 2021.12 |
| Digital Innovation of the Fever Thermometer, Team Leader Entrepreneurial Project (Excellent: 3 in 26), Antai College of Economics & Management <ul style="list-style-type: none">Develop a WeChat mini-program with <i>JavaScript</i>, <i>HTML</i> and <i>CSS</i>. Design the circuit and PCB of infrared thermometer, which can connect to mobiles via <i>Bluetooth</i>. Temperature registration can be done with greater efficiency in COVID-19 pandemic. | 2020.09 - 2021.03 |
| Big Data Analysis on Million Song Dataset Course Project, UM-SJTU Joint Institute <ul style="list-style-type: none">Compact and convert <i>hdf5</i> files to <i>Avro</i> files with <i>Python</i> scripts.Retrieve information from <i>Avro files</i> using <i>SQL</i> query in <i>Drill</i>.Analyze 20 GB dataset using parallelized BFS algorithm with <i>Hadoop MapReduce</i> and <i>Spark</i> on clusters. | 2022.06 - 2022.08 |

HONORS & AWARDS

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| Merit Undergraduate Scholarship, SJTU | 2021.11 |
| Most Improved Scholarship, SJTU | 2020.10 |
| Advanced Teaching Assistant, UM-SJTU Joint Institute | 2021.8 |

SKILLS

- Languages:** English (IELTS 7.5 / CET-6), Chinese (native)
- Programming:** Assembly (x86), Verilog, C, C++, Java, Python, MATLAB, TypeScript, HTML, Shell, SQL, Markdown, LaTeX
- Development:** Git, GitHub, Drone CI, Docker, Hadoop, Spark, Drill, Vim, VS Code, CCStudio, macOS, Linux
- Hobbies:** Badminton (former professional athlete & SJTU team member), Anime Piano