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| A close up of a sign  Description automatically generated  1859 Shirley Lane Apt. B8, Ann Arbor, MI, 48105  [dddd@umich.edu](mailto:dddd@umich.edu)  [website](https://haoliangcheng.netlify.app/)  (734) 548-7514 OBJECTIVE A highly motivated engineer seeking graduate school study. Looking to further develop my skills. PERSONAL INFORMATIONCITIZENSHIP F-1 Student Visa Course Experience Embedded System  Embedded Security  Robotics  Programming  Analog Circuit  Digital Circuit  Signal Processing  Computer Architecture SKILLS & INTERESTSCOMPUTER C, C++, MATLAB, Verilog, Embedded system design, Git, LaTeX, Microsoft Office Suite   LANGUAGES English – Full Professional Proficiency  Mandarin – Native fluency   INTERESTS Hardware design, Verilog, Basketball, Music | **Haoliang Cheng**  **EDUCATION**  **University of Michigan – GPA 3.96/4.00 Ann Arbor, MI**  Major: B.Sc. Computer Engineering **September 2021 – May 2023**  **Shanghai Jiao Tong University – GPA 3.73 / 4.00 Shanghai, China**  Major: B.Sc. Electrical and Computer Engineering  **September 2019 – May 2023**  Ranking: 33 / 285  **Research Experience**  **Security and Privacy Research Lab (SPQR) Ann Arbor, MI**  **Undergraduate Research Assistant Sept. 2022 – Now**   * Learn how to protect the analog sensors of the embedded system from security threats * Develop a device that can eavesdrop on touchscreen events from phone users remotely from emitting RF signals * Targeting a first-author poster submission on Hot Mobile * Working on ACM Conference on Computer and Communications Security conference submission   **Interactive Sensing and Computing Lab (ISC) Ann Arbor, MI**  **Undergraduate Research Assistant May. 2022 – Now**   * Design a wearable medical device for collecting the duration and frequency of urination in patients with urological diseases * Design and construct a low-power always-on wake-up circuit * Experienced in analog circuit design and low-power system design * Apply this analog circuit to a digital microcontroller to recognize the specific sound   **PROJECTS**  **EECS 473 – ADVANCED EMBEDDED SYSTEM Ann Arbor, MI**  **Uke Master (Ukulele Instructor) October 2022**   * Design four-layer PCB with microcontroller(MCU) with the shape accord with Ukulele in Altium * Design physical cover for PCB using Solidworks module and familiar with laser cutting machine and CNC carving machine * Involved in Android app programming   **EECS 470 – COMPUTER ARCHITECTURE Ann Arbor, MI**  **R10K Based Out of Order Processor January 2022**   * Design and implement an R10K based out of order processor with Verilog * Implement ROB, RS, Map Table, Free List, and parts of LSQ, together with some necessary Functional Units individually with Verilog * Contribute to the design of I-cache, D-cache and Memory Manage Unit * Included features such as a 2-way superscalar to support multiple instructions, early branch resolution using b-mask to avoid flush/ squash delays, non-blocking I-cache and D-cache, pipeline memory access, and a GUI debugger to improve efficiency   **EECS 373 – Introduction to Embedded System Design Ann Arbor, MI**  **Automatic Condiment Dispenser February 2022**   * Design the whole system based on the STM series NUCLEO board * Integrated a stepper motor, linear actuator, ultrasonic sensor, and force sensor to implement a feedback algorithm to control the number of condiments being dispensed * Involve in constructing the 3D module of the machine with Solidworks   **Activities**  **Dream Corps University of Michigan Ann Arbor, MI**  **Member Sept. 2021 – Now**   * Involve in volunteer teaching program for poor students in China, preparing lectures to teach them natural science * Organize activities to raise funds and donate all of them to support poor village   **Student Science and Technology Innovation Association Shanghai, China**  **Consultant May 2020 – July 2021**   * Organized Machinery Competition for the design of an arm to complete several tasks and served as head referee for the competition * Built the electronic component for the racing track that students would use in the competition  HONORS & AWARDS  * Roger King Scholarship * Cheng's Family Scholarship * Wu Jiong & Sun Jie Scholarship * Undergraduate Academic Excellent Scholarship * Second Prize in the Qian Xuesen Cup |