SAMPLE CV

(585) 555-5555 • sample@rochester.edu

EDUCATION

UNIVERSITY OF ROCHESTER — ROCHESTER, NY
Bachelor of Science in Electrical and Computer Engineering — **May 20XX**

- Overall GPA: 3.XX (out of 4.0)

HONORS AND AWARDS

University of Rochester: Dean's List, 6 of 7 semesters
University of Rochester: Dean's Scholarship, 20XX-20XX
Tau Beta Pi Engineering Honor Society
Institute of Electrical and Electronics Engineers (IEEE) Student Achievement Award, 20XX

ELECTRICAL ENGINEERING RESEARCH EXPERIENCE

UNIVERSITY OF ROCHESTER – DEPARTMENT OF ELECTRICAL AND COMPUTER ENGINEERING — ROCHESTER, NY
Independent Research under Dr. Anita Lin — **September 20XX - Present**

- Conducted research on wireless sensor networks (WSNs) and the extreme resource constraints faced, especially in terms of their energy supply.
- Designed a probabilistic sleep-scheduling network; used square lattice percolation model to find minimum density of sensors ensuring a non-exposure path network.
- Proposed modification of AODV routing protocol, where routers are activated based on percolation threshold.
- Simulation results showed that significant energy savings can be achieved with proposed model, compared with other existing algorithms.

Independent Study under Dr. Anita Lin — **January - May 20XX**

- Learned about percolation theory, including one dimensional, two dimensional and Cayley tree percolation models and its application in ants in the labyrinth, forests fire, fractal oil fields and diffusion problems. Investigated its application in understanding the underlying behavior of wireless communication networks.

BROWN UNIVERSITY – DEPARTMENT OF ELECTRICAL ENGINEERING — PROVIDENCE, RI
Distributed Research Experiences for Undergraduates (DREU) Program Fellow — **June - August 20XX**

- Served as Dissertation Research Assistant for Doctoral Candidate Eli Abramowitz.
- Assisted in research focusing on the development of high level techniques to reduce the effects of excessive switching activity during full-scan test of digital circuits. Generated fault site dictionaries for FM receiver, matrix, color converter and DES-56 circuits by Fastscan software and C programming language.
- Designed algorithm to generate the observation data from those fault dictionaries using C programming language.

UNIVERSITY OF ROCHESTER – DEPARTMENT OF ELECTRICAL AND COMPUTER ENGINEERING — ROCHESTER, NY
Independent Project under Dr. Jennifer Dorsey — **June - August 20XX**

- Conducted research on generating optimized test pattern sets for multi-core systems.
- Designed algorithm to generate high quality tests online to detect problems due to defects and wear-out, focusing on creation of pattern templates that will detect "hard" faults.
- Investigated identity of each bit of an ATPG set corresponding to stuck-at hard fault of the VLSI circuits, c432 and c499.
- Designed algorithm to generate templates of partially specified pattern guaranteed to excite or observe a hard fault.
- Found that proposed high quality test sets are guaranteed to excite or observe targeted defects without detecting others, resulting in a more efficiency-oriented fault detection than the original ATPG sets.

POSTER PRESENTATIONS

- **C. V. Sample** and A. M. Lin, "Energy Efficient Event Detection and Data Transmission in Wireless Sensor Networks," presented at IEEE International Conference on Communications. Los Angeles, CA, 20XX.

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SELECTED ELECTRICAL ENGINEERING COURSE PROJECTS

UNIVERSITY OF ROCHESTER — ROCHESTER, NY

Smart House Controller for Senior Design Project — **Fall 20XX**

- With group, designed and built controller system implemented by low-power sensors and controllers connected through a central hub by using wireless technology.
- Realized communication between the controller and devices without causing interference.
- Designed temperature adaptive feature to adjust the dim and switch between different colors of incandescent lamps according to the temperature sensed by the thermal sensor.
- System will communicate to different types of devices, deliver commands, and allow for updates from the devices.
- Presented efforts and final outcomes via poster as well as question and answer sessions with faculty and peers.

Fishing Lure System — **Spring 20XX**

- With a partner, designed and built fishing attraction and alarm system.
- Fishing attraction system was implemented by different frequencies of UV LED light flashes and Motor pulses controlled by the microcontroller.
- Designed tension detector to detect fish on the hook; created power-saving feature by controlling the attraction devices' ON or OFF switch.
- Designed and built prototype alarm system to alert fishermen that fish has been caught; attached fish alarm device to end of the fishing rod, to sense fish through tension of the fishing line.
- Documented efforts and outcomes via PowerPoint presentation and interactive session for faculty and peers.

TEACHING EXPERIENCE

UNIVERSITY OF ROCHESTER — ROCHESTER, NY

Teaching Assistant for Communication Systems — **January 20XX – Present**

- Hold office hours to assist students with course material; grade homework assignments and exams.

Study Group Leader for Introduction to Signals and Circuits — **September - December 20XX**

- Led weekly workshop to assist students in learning and solving problems using cooperative learning strategies.

Center of Excellence in Teaching and Learning: Tutor for Calculus II and Probability — **February 20XX – December 20XX**

- Provide one-on-one tutoring assistance to students struggling with course material.

CAMPUS AND PROFESSIONAL ACTIVITIES

UNIVERSITY OF ROCHESTER — ROCHESTER, NY

Institute of Electrical and Electronics Engineering (IEEE) Student Member — **January 20XX - Present**

Electrical and Computer Engineering Department Ambassador — **September 20XX - Present**

TECHNICAL AND QUANTITATIVE SKILLS

- Proficient in programming in C, C++, MATLAB, Mathematica, Visual Basic; operating Linux, Windows and Mac systems
- Advanced mathematical modeling abilities