KHUM REGMI
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Motivated and passionate electrical engineering graduate eager to make a positive lasting impact in infrastructure development and sustainable electrical systems through innovative engineering design, hardware programming and analysis knowledge and skills. (Willing to relocate)

EDUCATION

The University of Mississippi — B.S. in Electrical and Computer Engineering
Oxford, MS — Graduation: May 2021, GPA: 3.88/4

TECHNICAL SKILLS AND INTERESTS

Electrical Equipment and Tools: Oscilloscope | Signal Generators | Multimeter | Voltage Tester | Transformers | Semiconductors | FPGA Boards | Programmable Logic Controllers (PLC) | Microprocessor Chips | FETs & BJTs | Raspberry Pi | Circuit Breakers | Amplifiers | Sensors
Mechanical Skills: Troubleshooting | Soldering | Schematics and Circuit Design | Electrical Drawings | Electrical Wiring | Electrical Panel
Design and Simulation Tools: KiCAD | AutoCAD | SolidWorks | Catia V5 | NI Multisim | LTSpice | CMOS VLSI Design | Inkscape | Vivaldo
Hardware Description Language: VHDL | Verilog | System Verilog **Programming Language:** Java | Python | MATLAB | C/C++
Computer Networking: Local Area Networks | Cellular Technologies | Wireshark | Ethernet & WIFI | Electronics Mail
Operating Systems: Linux Ubuntu | Windows 7, 8, 10 | MacOS | Virtual Box **Remote Utilities:** VNC | Remote Desktop | SSH | Telnet
Others: Microsoft Office | Latex | Control Systems | Circuit Theory | Theory of Fields | National Electric Code | 6 Sigma | Lean Manufacturing
Interests: Sports | Technology | Innovation and travel | Fishing

PROFESSIONAL EXPERIENCE

09/20—05/21 **Undergraduate Research Assistant**,
Department of Electrical Engineering – The University of Mississippi
- Implementation of Advanced Encryption Algorithm (AES) 128-bit encryption/decryption algorithm on Verilog Hardware Description Language
- Real-time end-to-end encrypted communication and data transfer between FPGA boards in close proximity implementing AES and UART protocol using Python and Verilog HDL in Vivaldo platform
- Keep track of the research members' progress and presence in weekly meetings, equipment used as well as prepare and present expense reports of purchases made to the administration.
- Departmental presentation and comprehensive research paper at the completion of the project

05/20—09/20, 05/21—07/21 **Intern - Technical Assistant,**
XD Theater Triotech – Multiple Locations
- Regular inspection and repair of basic electrical components, and ship heavily damaged items to the main location for examination
- Installing new devices and equipment as needed like projectors, speakers, pre-amplifiers, etc. using manuals and with guidance over the phone at times
- Troubleshoot circuit level and system-level problems efficiently caused by overuse, extreme weather, and other unfavorable conditions

10/19—05/21 **Student Tutor**,
FedEx Student-Athlete Success Center – The University of Mississippi
- Work with student-athletes and carry out group and individual study sessions on college-level Physics and Mathematics courses
- Come up with new ideas to make the sessions more effective and share them with colleagues during monthly training and provide documentation to the Athletics Department after each session

08/18—04/20 **Resident Assistant**,
Department of Student Housing – The University of Mississippi
- Customer service to the dormitory residents and visitors, take phone calls, write emails, maintain excel worksheets, report maintenance needs, manage conflicts, help engage the freshmen residents with the community

UNDERGRADUATE PROJECTS

1. Devised a sleep monitor using Grove Pi components, light and sound sensors, and a smart bulb using Python in Raspberry Pi
2. Comprehensive study and departmental presentation on development/mechanism of each generation of cellular networks from 1G through 5G, and shortcomings that inspired next generations of cellular technologies
3. A phono player preamplifier that incorporates the RIAA playback curve starting with schematics diagram using basic electrical components and a logic simulation on Multisim followed by PCB design in KiCAD and implementing the results on the breadboard

HONORS AND ACTIVITIES: Academic Excellence Award (2017- 21) | Sally McDonnell Barksdale Honors College | Chancellor's Honor Roll | Provost Scholar | Ole Miss Robotics Club | Institute of Electrical and Electronics Engineers, Ole Miss | Engineering Leadership Award 2021 Nominee | Green Grove Volunteer (2019,2020) | Top 10 High School Graduate, St. Xavier's College