TALENT A. KORONYA

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EDUCATION

Dartmouth College, Hanover, NH   **June 2027**
Bachelor of Arts, Intended Major in Electrical Engineering and Computer Science:
Relevant Coursework: Computing and Programming (**Python**),
Scientific Computing(**C and Matlab**) Object Oriented Programming(**Java**) Intro to Engineering, ENGS 22(Systems), ENGS 28(Embedded Systems), ENGS 32(Introduction to Linear and Digital Circuits),ENGS 23(DistributedSystems) ENGS 62(Microprocessors in Engineering Systems)
Activities: Dartmouth NSBE Chapter member, Dartmouth Humanitarian Engineering, Stand-up comedy, Dartmouth Casual Thursday Improv

RELEVANT STEM PRACTICAL PROJECTS

- Made a passive AC unit to regulate the temperature in Dartmouth dorms with my Intro to Engineering group
- Build a smart home automation system that triggers lights when one wakes up and turns the fan if it gets hot in the dorm
- Created Dartmouth campus map using Python Dictionaries and Linkedlist *and* used Matlab to simulate the evolution of ozone level in the stratosphere
- Created an in-lab op-amp AM radio receiver and a transistor AM radio receiver & created a car parking system in VHDL using FSM
- Operated interrupt-controlled LEDs, DC motors operation, Marble maze solve using servo motors, LCDs, counters and timer interrupts

WORK EXPERIENCE

Thayer School of Engineering Research   **May 2025 – present**
Undergraduate Researcher in Jason Stauth's Power and Integrated Electronics lab
- Work on high-frequency and chip-scale power electronics, focusing on photovoltaic and electrochemical system management
- Modeling an efficient high-voltage (HV) drive circuit for mmand cm-scale electrostatic and piezoelectric microrobotic transducers

Thayer School of Engineering   **November 2023 – Present**
Machine Shop TA
- Provide technical support to engineering students for various projects and research.
- Collaborated on a team of 4 to provide SolidWorks support for a class of 14, guiding them to proficiency in the software.
- Proficient in laser cutting, sawing, sanding, vinyl cutting, 3D printing, ShopBot, milling, and turning.

Thayer School of Engineering Research   **May 2024 – June 2025**
Undergraduate Researcher in William Scheideler's SENSE lab
- Worked on metal halide perovskites that enable rapid, roll-to-roll manufacturing of a broad class of optoelectronics
- Utilized liquid metal printing to produce ultrathin two-dimensional (2D) indium tin oxide (ITO) films with superior microstructural, optical, and electrical properties for flexible solar cells.

Netro Electronics, Harare, Zimbabwe   **January 2023 – August 2023**
Electrical Engineering Intern
- Designed and implemented an incubator circuit board; assisted in its installation.
- Collaborated with 2 interns in the development and assembly of 40 programmable electronic Arduino boards in a month.
- Delivered pitches on the intersection of robotics, STEM, and Zimbabwe's curriculum to schools.
- Personal project: Designed a joystick-controlled cooling system using Arduino technology

LEADERSHIP & SERVICE

Dartmouth College, Hanover, NewHampshire   **February 2024 – present**
Undergraduate Advisor
- Promote health, wellness, and safety by responding to crises, informing residents about security measures
- Facilitate a sense of community by engaging dorm residents in activities, fostering relationships, and promoting inclusivity. Also developed individual relationships with residents by being approachable and addressing personal needs
- Demonstrated leadership and professionalism by participating actively in staff team development, effectively communicating with supervisors, and assisting with major college functions and events.

Dartmouth First-Year Summer Enrichment Program (FYSEP) -for first-gen low-income students
Student Scholar(2023) & Academic Fellow (STEM) & Mentor(2024),   **August 2023 & August 2024**
Participant in **Catalyst at Dartmouth, April 2024**

SKILLS & INTERESTS

Languages: Python, C , Java, C++, HTML, Arduino, Matlab, Solidworks, STM32, VHDL, SoC, Verilog
Frameworks: React, Flask
Certifications: Harvard CS50 EdX course, Codepath Technical Interview Prep
Fluency: Shona, English
Additional Interests: Creative Writing: I write fictional short stories and series. My writing competed nationally.