

Tanaka Chonyera

Mechanical & Aerospace Engineer · Pharmaceutical Capital Project Lead · Founder, Marion County Rocket Bootcamp

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HONORS & AWARDS

- **NSBE 25 Under 25 Honoree (2026), National Society of Black Engineers:** selected through a competitive national nomination and evaluation process conducted by NSBE leadership and appointed review committees, formally issued in conjunction with the 2026 NSBE Annual Convention.
- **1st Place in Africa, 1st Place in Botswana, DStv Eutelsat Star Awards (2018):** the first-ever Botswana win in the essay category, in a competition that drew 8,000+ entries over its history; judged by a panel chaired by European Space Agency astronaut Paolo Nespoli, who said Tanaka would be "the next Nobel Prize winner." Prize: trip to Paris and French Guiana to witness an Ariane rocket launch.
- **1st Place, multinational STEM rocket design competition** (South Africa, 2017).
- **Ranked the #1 flyer by flight count at LDRS 44 (2026),** the largest high-power rocketry launch in the world: 34 flights, more than double 2nd place, per the host club official flight report. Tripoli Level 2 certified. Endorsed by board members of the National Association of Rocketry (NAR), the U.S. governing body for sport and educational rocketry.
- **\$10,000 STEM facilities budget** awarded by Maru-a-Pula School in direct response to the Eutelsat win.
- **\$140,000 MSU Honors College Scholarship** and **\$1,250 Boeing Scholarship** for engineering excellence.

PRESS & MEDIA

- **WTHR (NBC Indianapolis), Feb 2026:** broadcast and digital feature ["Indianapolis engineer launches free rocket boot camp for kids"](#), with companion video segment, syndicated by [97.5 WCOS \(iHeart\) Morning Rush](#).
- **The Week Junior, April 2026:** [profiled in the People section](#) of the national weekly news magazine alongside a 3-time Paralympic medalist and a network late-night TV writer.
- **Fox59 Indy Now segment (Jun 15, 2026)** with the City of Fishers, cross-aired on CBS4 Indianapolis; **Eli Lilly internal company news:** featured during Volunteer Week for community STEM mentorship work.
- **Millions of views across major Reddit communities** (r/space, r/pics, r/rocketry, r/MadeMeSmile, r/AerospaceEngineering, r/UpliftingNews) by [u/TanakaChonyera](#) over 10+ months of consistent weekly posting, including nine individual posts surpassing 100,000 views each and three exceeding 380,000 views.
- **Botswana Guardian (national newspaper):** two feature articles - ["Botswana's Future Astronaut is Born"](#) (Feb 2019) and ["DStv Eutelsat Award's Botswana winner sets Africa's sights on space"](#) (post-trip).
- **Space in Africa, March 2019:** profile titled ["18-year-old Tanaka Chonyera wants to lead Zimbabwe to space."](#) Additional appearances on BTV (Botswana national television), DStv, and Botswana radio.

SPEAKING & TALKS

- **Enlace Academy (2026, delivered):** one-day build event serving 75 students - first replication of the model at another institution. Invited to address students on STEM, aerospace careers, and the High-Power Rocket Bootcamp.
- **University of Indianapolis (upcoming, Fall 2026):** invited to speak in the next academic semester on aerospace engineering, capital project execution, and youth STEM mentorship.

FOUNDING STEM & ROCKETRY PROGRAMS (2018-PRESENT)

High-Power Rocket Bootcamp (Founder)

August 2025 - Present

Founder & Lead Instructor · Marion County, IN

- Trained **141 K-12 students plus 30 adult volunteers** as program facilitators (171 direct participants, reported to Cummins) in high-power rocketry; each participant builds, paints, and launches their own rocket reaching altitudes up to **5,000 feet** on student-built motors and airframes (next phase: electronic dual deployment). **165 rockets built, 118 launched** to date; **1,000-rocket public goal**.
- Raised **\$80,000 through MEPI** (Minority Engineering Program of Indianapolis, incl. a fully reconciled \$40,000 Cummins grant), plus **\$75,000 committed by Eli Lilly** for its Sep 24-25, 2026 Global Day of Service bootcamp (~**\$155,000 total approved**), with corporate sponsorships secured specifically to fund the bootcamp, supporting concept-to-active operations.
- Designed end-to-end curriculum covering aerodynamics, propulsion, recovery systems, and FAA airspace coordination for K-12 students.
- Recruited a multidisciplinary volunteer corps spanning engineering, medicine, and industry leadership, broadening student exposure to professional pathways across STEM disciplines.
- In active discussions with Eli Lilly's Philanthropy Division to scale the bootcamp model across Lilly's U.S. sites.

Maru-a-Pula Rocketry and STEM Club (Founder)

February 2018 - July 2020

Rocketry Club Founder & Chief Engineer · Gaborone, Botswana

- Founded the first student-led rocketry program at Maru-a-Pula School, developing a high-powered solid-propellant rocket from scratch with chemistry-department-supplied fuel and oxidizer - establishing a **7+ year body of original work in youth rocketry** that continued through MSU and into the High-Power Rocket Bootcamp.

TECHNICAL REVIEW & OVERSIGHT

- **Flyer of Record, High-Power Rocket Bootcamp (2025-Present):** evaluate and certify every student-built rocket prior to launch, applying NAR safety codes and FAA regulations to assess airframe integrity, motor classification, recovery system reliability, and airspace compliance. Final go/no-go authority on every flight.
- **Vendor Selection & Technical Review, Eli Lilly (2024-Present):** bid scopes of work and evaluate competing vendor proposals for a \$150M+ capital project, sitting on technical review and vendor selection panels and recommending contract awards across design, construction, and commissioning firms.
- **Volunteer Selection, High-Power Rocket Bootcamp (2025-Present):** evaluate volunteer applications and select mentors based on technical fit, instructional capability, and alignment with program mission, including recruitment of senior industry professionals.
- **Endorsed by board members of the National Association of Rocketry**, the U.S. governing body for sport and educational rocketry, who have formally vouched for the technical and educational rigor of the bootcamp.

PROFESSIONAL EXPERIENCE

Project Manager, Capital Projects

June 2024 - Present

Eli Lilly and Company · Indianapolis, IN

- Lead a **\$150M+ capital capacity expansion** for warehouse and logistics infrastructure supporting one of Lilly's flagship therapeutics, from design through construction, commissioning, and qualification.
- Direct the project managers of the design firm, construction firm, and commissioning & qualification firm, each reporting to me, with a peak construction force of hundreds on-site coordinated against tight regulatory and quality milestones for FDA-regulated facilities.
- Bid scopes of work and evaluate competing vendor proposals prior to contract award, sitting on technical review and vendor selection panels for the project.

- Hold monthly governance reviews with the site head of the receiving business unit, translating technical engineering decisions into executive-ready risk and progress reporting and aligning capital partners on tradeoffs and recovery plans.

Team Lead, Aerodynamic Body Design

January 2024 - April 2024

MSU Solar Racing Team • East Lansing, MI

- Led the senior capstone team to design an aerodynamic, lightweight, manufacturable body, driving design decisions with Siemens NX CAD, MATLAB, and fluid dynamics / boundary layer theory to justify model choices.

Development & Process Engineering Intern

May 2023 - August 2023

First Solar • Perrysburg, OH

- Validated and optimized a novel ultrasonic welding process for solar panel modules, preventing potential damage during automated manufacturing.
- Used JMP statistical analysis software to analyze and interpret critical testing data, enabling data-driven decision-making for process enhancements.

MSU Chapter Secretary & Communications Chair

September 2022 - Present

National Society of Black Engineers (NSBE) • East Lansing, MI

- Led a streamlined social media rebranding to @nsbemsu and redesigned the chapter website (nsbemsu.org), driving a **38% increase in Instagram reach**, **47% membership growth**, and a **121% surge** in interest for national convention attendance.
- Solicited sponsorships from industry-leading companies including SpaceX to fund chapter operations.

Applied Research & Additive Manufacturing Intern

May 2022 - May 2023

Fraunhofer USA • East Lansing, MI

- Pioneered a new method to fabricate boron-doped diamond (BDD) electrodes, generating over **\$15,000 in product sales at a 57% profit margin** (previously sold at cost).
- Designed and 3D printed crucial new components using Siemens NX through rapid design iteration, drastically improving and standardizing fabrication and quality control of BDD electrodes.
- Fabricated carbon fiber microelectrodes that successfully measured dopamine in a rat's brain, supporting Parkinson's research at the Institute for Quantitative Health Science & Engineering at MSU, with contributions to research published in *Biosensors*.

EDUCATION

B.S. Mechanical Engineering, Aerospace Concentration

Sept 2020 - May 2024

Michigan State University (MSU) Honors College • East Lansing, MI

- GPA: 3.5/4.0 • \$140,000 Honors College Scholarship • Boeing Scholarship recipient.