Phoenix Jahn

Physics & Mathematics, Southern Illinois University Carbondale
phoenix.jahn@siu.edu | teslascuriosities.com

Full CV

Education

B.S., Physics and Mathematics 2023 – Expected Graduation May 2027
Southern Illinois University Carbondale

- Coursework: Differential Equations, Mathematical Statistics, Classical Mechanics, Nuclear Physics, Electricity & Magnetism I & II
  In progress: Quantum Physics II, Computational Physics

A.A.S., Electronics Engineering Technology and Industrial Maintenance Engineering 2019 – 2023
John A. Logan College

Research Experience

Research Assistant, Mapping Environmental Radiation Sep 2025 – Present
Southern Illinois University Carbondale

- Radiacode Acquired Data (RAD): large-scale environmental radiation dataset from dosimeters
- Built the data import pipeline and a public dose-rate map page

Research Assistant, Spin Exchange Optical Pumping Laser Systems Jan 2025 – Present
Southern Illinois University Carbondale

- Modular laser for xenon hyperpolarization, built from lower-cost, lower-power diode modules
- Characterized diode arrays with volume Bragg gratings; designed a 3D-printed stand and telescope

Presentations & Honors

Poster Presenter, APS Division of Nuclear Physics Meeting October 2026
American Physical Society

- "Building a Large-Scale Radiation Monitoring Dataset Using Consumer Semiconductor Gamma-Ray Spectrometers"
- Selected for the Conference Experience for Undergraduates (CEU) program at the meeting

Professional Experience

Automation Engineer Jan 2023 – Jan 2024
CLEANTheory Inc.

- Designed and built electronic control systems for automated cleaning of indoor precision agriculture operations

Educational Outreach Coordinator Feb 2024 – Oct 2024
STEM Education Research Center

- Assisted with outreach and education to build children's enthusiasm for STEM topics

Leadership & Outreach

President, Society of Physics Students Spring 2024 – Present
Southern Illinois University Carbondale

- Organize chapter meetings and plan events
- Run outreach and physics demonstrations; helped stream the 2024 solar eclipse (national Emmy-winning broadcast)

Scoutmaster, Troop 66 Carbondale 2024 – Present
Scouting America, Carbondale, IL

- Lead the troop, supporting youth leadership and development; completed Wood Badge leadership training

Eagle Scout 2019
Scouting America

Skills

Programming & tools: Python, Java, SQL, Git, Linux, LaTeX
Hardware & other: Electronics, welding, machining, Raspberry Pi, 3D printing/design, public speaking