

GRACE SUN

Stanford, CA | Lexington, KY
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Website: <https://www.gracesun.org/>

EDUCATION

Stanford University, Stanford, CA, Class of 2029

- Major: Electrical Engineering/Computer Science
- Cumulative GPA: 4.115

Paul Laurence Dunbar High School, Lexington, KY

- Math, Science, and Technology Center (Selective Admissions)
- Received High School Diploma, Graduated May 2025
- Unweighted GPA: 4.00 | Weighted GPA: 4.85

RESEARCH/INTERNSHIPS

MetaNovas Biotech

Aug 2025 – Present

Computational Scientist - Intern

- Developing meta-agent, an AI agentic tool and workflow to automate network analysis, hypothesis generation, and target selection processes for drug development and health/cosmetic ingredient selection
- Using large language models for integrating network/enrichment analysis, Steiner tree analysis, and omics databases to analyze drug and peptide interactions. Expanding to automated in-silico docking pipelines and integrating with Biomni
- Working with Proteomics R&D in the AI Research Laboratory
- **Skills:** Python and Automation; Experience with Natural Language Processing, Large Language Models (LLMs)/GPTs; Prompt Engineering; Network Analysis and Enrichment Analysis with Graph Theory; Backend Development with RESTful API and omics tools (STRING, Cytoscape, py4cytoscape, UniProt)

University of Kentucky Moseley Bioinformatics and Systems Biology Laboratory

Aug 2023 – Present

Bioinformatics Research Assistant

- 360+ hour Capstone Research Project under the mentorship of Prof. Hunter Moseley on research in computational metabolomics analysis and bioinformatics
- Developed an enzymatic distance concept using atom mappings and reaction transformations to help deconvolute unannotated metabolites in metabolomic datasets by measuring their distance from known metabolites
- Developing machine-learning models to predict enzymatic distances between metabolites from chemical structure to interpret metabolite pathway involvement
- **Skills:** Python (Object-Oriented Programming); Machine Learning (ML) with PyTorch, XGBoost; Data Analysis and Processing with JSON, SHAP, SciPy, NumPy, SciKit-Learn, Matplotlib, Pandas, H5Py; GPU Acceleration/CUDA; GIT Version Control; Optimization with Cython; Linux/Ubuntu Operating System

University of Kentucky Organic Materials and Devices Laboratory

Jan 2024 – May 2024

Materials Science Research Assistant

- 200+ hours of research under the mentorship of Prof. Alexandra Paterson
- Used chemical doping to improve the performance, amplification, switching, signal-to-noise ratio, and stability of n-type organic electrochemical transistors (OECTs) for biomedical applications — low-cost, biocompatible, versatile, wearable/implantable for detection and treatment
- Work featured in an article by Business Insider
- **Skills:** Semiconductor Solution Creation, Materials Characterization (I-V), Electrochemical Impedance Spectroscopy, Cyclic Voltammetry; OriginLab

Growth

- Testing, refining, and executing growth strategy on Reddit as a key channel
- Build AI agents and automations to identify relevant discussions & draft replies
- **Skills:** Python; Marketing Automation; API integration

Summer Science Program (SSP) Biochemistry Program

Summer 2024

Biochemistry Researcher

- Conducted biochemistry research at a selective 6-week research program
- Developed a novel small molecule inhibitor for fungal crop pathogen *Rhynchosporium commune* via experimental and *in silico* modeling techniques
- **Skills:** SDS-PAGE, Enzymatic Characterization Assays, Inhibition Screening, Molecular Operating Environment (homology model, inhibitor molecular docking)

Columbia University Chemical Engineering

Summer 2023

Remote Research Intern

- Remote internship with Prof. Jingguang Chen on the electrochemical upgrading of glycerol, an underused biodiesel production byproduct, into green chemicals
- Performed global and regional market analyses on biodiesel and glycerol markets (top producers, projected growth) using data sources (IEA, EIA, OECD-FAO, etc.)
- Identified high-growth market segments for glycerol-derived chemical products and recommended commercially viable electrochemical production strategies
- **Skills:** Market Analysis; Value Chain and Profitability Analysis; Policy Analysis; Competitive Landscape Analysis; Financial Data Analysis, Microsoft Office Suite

RELEVANT HONORS

Regeneron International Science and Engineering Fair (ISEF) George D. Yancopoulos Innovator Top Award of \$75,000

May 2024

- 1st Place Overall Award at the Regeneron ISEF, the world's largest pre-college science and research competition.

Regeneron International Science and Engineering Fair (ISEF) 4th place in Biochemistry

May 2025

Abstract accepted to 4th International Electronic Conference on Metabolomics

Sep 2025

Invited as the valedictorian speaker for the 2024 Southern California American Chemical Society High School Research Symposium

Nov 2024

National Technology Student Association Biotech. Design Qualifier & Kentucky Champion

June 2023

- Designed and prototyped 3D food printing and laser cooking tool for space missions.

ADDITIONAL ACTIVITIES

Stanford Space Institute – Mars Team

Nov 2025 – Present

- IREC Payload Project, Programming and EE Subteam
- Observe sodium acetate crystallization in microgravity using autonomous thermal control, imaging, and sensing.
- **Skills:** Raspberry Pi (embedded Linux systems), Camera module integration & image acquisition, IMU integration (accelerometer)

REFERENCES

Hunter Moseley, PhD
Professor, Dept. of Mol. & Cell. Biochemistry
University of Kentucky
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ADDITIONAL SKILLS

- Java, JavaScript, Node.js, React Native, C++
- Mandarin Chinese (Fluent), Communication

Certifications

- Pearson Information Technology Specialist in JavaScript
- Pearson Information Technology Specialist in Python