# Sean Fang

# seanfang08@gmail.com +1(850)844 - 3310

#### Education

The International Baccalaureate (IB) Diploma Programme, Pensacola High School, Pensacola, FL, USA Weighted GPA 5.03 / Unweighted GPA 3.98 SAT 1550 ATC 36

2022-Present

#### Honors

• MathCounts Competition, first place (Northwest Florida region	1), 2021, 2022
• American Math Competition (AMC) 10, first place	2022, 2023
• American Math Competition (AMC) 12, first place	2024
• AIME qualifier	2024
• Commissioner's Academic Challenge Team	2024-2025
• Florida Sunshine Scholar	2025
• Semifinalists, National Merit® Scholarship Program	2025

## Skills

## Music Instruments

- Piano (10 years of training and performance experience)
- Violin (8 years of training and ensemble participation) Violin supervisor: Dr. Leonid Yanovskiy, University of West Florida.
- Performed in recitals, ensemble groups, and chamber music, demonstrating teamwork and stage presence.

Computer Skills: Python (scikit-learn, numpy, etc.), R, Matlab, LaTex.

#### **Publications**

- [1] B. OLUYEDE, L. SCHRÖDER, S. Fang, A. COHEN, T. MOAKOFI, Y. ZHANG, AND S. Pu, Advancing Reliability and Medical Data Analysis Through Novel Statistical Distribution Exploration, Mathematica Slovaca, 75 (2025), pp. 225– 242.
- [2] C. F. S. Fang AND S. Pu, The Kumaraswamy Exponentiated Odds Ratio Family: Mathematical Insights and Practical Applications, In press.

# National Presentations

Contributed Talk: Data-driven Analysis of Chemical Short-range Order-Property Correlations in Multi-principal Element Alloys, Joint Mathematics Meetings, Seattle, WA, January 9, 2025.

Poster Presentation: The Kumaraswamy Exponentiated Odds Ratio Family: Mathematical Insights and Practical Applications, Mathematics Association of America MathFest, Sacramento, CA, August 9, 2025.

Activities Academic Team 2022–Present

 A trivia focused club which competes in the National Academic Quizbowl Tournament, requiring a variety of knowledge in math, science, history, literature, etc.

• Meets once a week during the school year.

## Science Olympiad

2022-Present

- A club which competes in Science Olympiad, a competition involving a variety of STEM subjects in both knowledge and build events.
- Meets once a week during the school year.

## Mu Alpha Theta

2024-Present

- Math focused club which participates in AMC(American Math Competitions) 10 and 12. Hosted the Pi competition in Pensacola High School.
- Meets once a week during the school year.

STEM Club 2024–Present

- Club based around the STEM field, such as promoting it to others or assisting people in STEM related subjects. Also hosts events related to STEM.
- Meets every other week during the school year.

# CSDA Lab at the University of West Florida (UWF) 2024-Present

- Computational Statistics and Data Analytics (CSDA) Lab at UWF, working on research projects in data science, statistical process monitoring, computational neuroscience, probability distributions, applied machine learning, and AI. Supervisor: Dr. Shusen Pu.
- Meets twice a week during the summer and once a week during the regular school time.
- Research focus on the statistical data analysis, statistical distributions, and machine learning applications.

## Summer School Programs at UWF

2024-2025

- STA 4031 Math/Stat I, UWF, A (Summer 2024).
- MAP 2023 Differential Equations, UWF, A (Summer 2025).
- MAS 3105 Linear Algebra, UWF, A (Summer 2025).

## Violin Solo performance at UWF

- Solo performance, UWF, November 2022.
- Solo performance, UWF, May 2023.

#### Swim Team at GPACK

• USA swimming member, Swim Team at The Greater Pensacola Aquatic Club, (2018-2023).