




# JOHN FLORIAN RAICU

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## EDUCATION

Glenbrook South High School (GBS) | GPA 4.9/4.0

2020 - Present

▪ Coursework: Biology, Calculus, Chemistry, Computer Science, Engineering, Medical Technology, Physics, Statistics

## PUBLICATIONS (PEER-REVIEWED) - Google Scholar

- [1] **John Raicu**, Valerie Hayot-Sasson, Kyle Chard, and Ian Foster. "Navigating the Molecular Maze: A Python-Powered Approach to Virtual Drug Screening", IEEE/ACM SuperComputing/SC 2023
- [2] Jamison Kerney, **John Raicu**, Kyle Chard, Ioan Raicu. "Towards Fine-grained Parallelism in Parsl", High-level Parallel Programming Models and Supportive Environments Workshop 2024, co-located with IEEE IPDPS 2024

## PRESENTATIONS

- Navigating the Molecular Maze: A Python-Powered Approach to Virtual Drug Screening, IEEE/ACM SC 2023 November 2023
- ParslDock: Accelerating Virtual Drug Screening with Parallelism and Machine Learning, ParslFest 2023 October 2023
- Navigating the Molecular Maze: A Python-Powered Approach to Virtual Drug Screening, University of Chicago August 2023

## AWARDS

**1<sup>st</sup> Place Individual Gold Medal & 5<sup>th</sup>/6<sup>th</sup>/5<sup>th</sup>/19<sup>th</sup> Team Place** | Illinois High School Chess Championship 2021, 2022, 2023, 2024  
**2<sup>nd</sup> Place ACM Student Research Competition (SRC)** | IEEE/ACM SuperComputing/SC Conference 2023  
**National Honor Society** 2023  
**Varsity Athletic Award (T) & Athletic Award (S/T) & Academic Athletic Award (S/T)** | Soccer & Tennis 2021, 2022, 2023  
**Momentum Award** | Glenbrook Symphony Orchestra 2021, 2022  
**Illinois State Seal of Bilingualism** | English & Spanish 2021

## SYNERGISTIC ACTIVITIES

**Student** | Engineering Capstone, Glenbrook South High School | Mentored by Victor Marinescu MD & Mike Sinde 2023 - Present  
▪ Designed and built a 3D printed electric violin using a piezo preamp and active feedback reduction with noise gate  
▪ Developed prototype to remotely control a transesophageal echocardiogram (TEE) probe for cardiovascular imaging  
**Tutor** | Glenbrook South High School 2022 - Present  
▪ Tutored GBS students 120 hours in the Titan Learning Center for calculus, biology, chemistry, Spanish  
**Tutor** | Freelance 2020 - Present  
▪ Tutored six students with one-on-one lessons paid hourly in Algebra I/II and Geometry  
**Research Assistant** | Globus Labs, University of Chicago | Mentored by Professors Kyle Chard and Ian Foster Summer 2023  
▪ Ten-week full-time paid internship exploring K-Nearest Neighbors machine learning to accelerate virtual drug screening  
▪ Contributed to tutorial "Developing Large-Scale Parallel Programs in Python with Parsl" at TAPIA'23  
**Intern** | Illinois Institute of Technology Summer 2021  
▪ Learned Python, HTML/CSS, and searched gene databases with BLAST in *Computers Meets Biology*  
**Entrepreneur** | J&L 2021  
▪ Ran a small business making homemade ice cream and selling it in Glen Oak Acres neighborhood

## COMMUNITY SERVICE

<b>Volunteering/Shadowing</b>	Dr. Thomas Gleason, Orthopedic Surgeon, Illinois Bone and Joint Institute	2023
<b>Volunteering/Shadowing</b>	Dr. Victor Marinescu, Cardiologist, Midwest Cardiovascular Institute	2023
<b>Musical Therapy</b>	Performed classical music in string ensemble at Senior Living Communities	2020, 2023
<b>Fundraiser</b>	Performed holiday music for a fundraiser at the Romanian Community Center	2022

## EXTRACURICULARS

<b>GBS Medical Chapter Club</b>	Member (2020 - 2023)   <b>Outreach Coordinator</b> (2022 - 2023)   <b>President</b> (2023 - Present)
<b>Glenbrook Symphonic Orchestra</b>	2 <sup>nd</sup> Violin (2020 - 2021)   1 <sup>st</sup> Violin (2021 - 2023)   <b>Principal Chair</b> (2023 - Present)
<b>Musical Instruments</b>	Violin (2010 - Present) & Piano (2015 - Present) at Music Institute of Chicago, Laughlin School of Music, and Private Instruction
<b>GBS Variety Show (*<b>Band Lead</b>)</b>	*Dangerous (2022)   *Pirates of the Caribbean, Sunny Side of the Street (2023)   *Tico Tico, *Concerto for Four Violins, Snow Angel, Survivor (2024)
<b>GBS Tennis Team</b>	2 <sup>nd</sup> Singles (2021)   1 <sup>st</sup> Singles JV (2022)   3 <sup>rd</sup> Singles Varsity (2023)   Varsity, <b>Team Captain</b> (2024)
<b>GBS Chess Team</b>	Board 3 (2021)   Board 5 (2022)   Board 4 (2023)   Board 2, <b>Team Captain</b> (2024)
<b>GBS Table Tennis Team</b>	2 <sup>nd</sup> Singles (2020 - 2022)   1 <sup>st</sup> Singles, <b>Team Captain</b> (2023)
<b>GBS Math Team</b>	Member (2021 - 2023)
<b>GBS Paddle Club</b>	Member (2022)   <b>President</b> (2023)
<b>GBS Soccer Team</b>	Striker (2020)   Striker (2021)   Left Wing Junior Varsity (2022)
<b>GBS Freshmen Orchestra</b>	<b>Concert Master</b> (2020 - 2021)

## SKILLS

**Language:** English (*native*), Romanian (*native*), Spanish (*fluent*)

**Computer:** Java, Python, HTML, Latex, Linux, MacOS, Jupyter Notebook, GitHub, Overleaf, Fusion360, Docker, UTM, Photoshop, MSOffice