




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", under preparation at High-level Parallel Programming Models and Supportive Environments Workshop 2024, co-located with IEEE IPDPS 2024

PRESENTATIONS

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|-------------------------------------------------------------------------------------------------------------|---------------|
| ▪ 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 st Place Individual Gold Medal & 5 th /6 th /5 th /16 th Team Place Illinois High School Chess Championship	2021, 2022, 2023, 2024
2 nd 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 <i>Computers Meets Biology</i>	
Entrepreneur J&L	2021
▪ Ran a small business making homemade ice cream and selling it in Glen Oak Acres neighborhood	

COMMUNITY SERVICE

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

EXTRACURICULARS

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