

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)

- [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 review at ACM/IEEE International Symposium on Cluster, Cloud, and Internet Computing (CCGrid) 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

1st Place Individual Gold Medal & 5th/6th/5th Team Place | Illinois High School Chess Championship 2021, 2022, 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 Biliteracy | 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

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

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

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

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| 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

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| GBS Medical Chapter Club | Member (2020 - 2023) Outreach Coordinator (2022 - 2023) President (2023 - Present) |
| Glenbrook Symphonic Orchestra | 2nd Violin (2020 - 2021) 1st Violin (2021 - 2023) Principal Chair (2023 - Present) |
| Music Institute of Chicago | Violin (2010 - 2023), Piano (2015 - Present) |
| GBS Variety Show (*Band Lead) | *Dangerous (2022) *Pirates of the Caribbean, Sunny Side of the Street (2023) *Tico Tico (2024) |
| GBS Tennis Team | 2nd Singles (2021) 1st Singles Junior Varsity (2022) 3rd Singles Varsity (2023) |
| GBS Chess Team | Board 3 (2021) Board 5 (2022) Board 4 (2023) Board 2, Team Captain (2024) |
| GBS Table Tennis Team | 2nd Singles (2020 - 2022) 1st Singles, Team Captain (2023) |
| GBS Math Team | Member (2021 - 2023) |
| GBS Paddle Club | Member (2022) President (2023) |
| GBS Soccer Team | Striker (2020) Striker (2021) Left Wing Junior Varsity (2022) |
| GBS Freshmen Orchestra | Concert Master (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