



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
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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
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AWARDS

1st Place Individual Gold Medal & 5th/6th/5th/19th Team Place | Illinois High School Chess Championship 2021, 2022, 2023, 2024
2nd 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 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

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

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) | **Outreach Coordinator** (2022 - 2023) | **President** (2023 - Present)

Glenbrook Symphonic Orchestra 2nd Violin (2020 - 2021) | 1st Violin (2021 - 2023) | **Principal Chair** (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 (*Band Lead) *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 2nd Singles (2021) | 1st Singles JV (2022) | 3rd Singles Varsity (2023) | Varsity (2024)

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