Sai Sivakumar

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Goals

Currently seeking to obtain a B.Sc. in mathematics, then to earn a Ph.D in mathematics with a currently unknown specialization. I am also seeking minors in computer science and in physics.

Education

August 2020 - present: Working on B.Sc. in Mathematics with a 3.97 GPA currently, University of Florida (UF).

August 2016 - June 2020: Graduated with IB diploma with a 4.00 GPA, Stanton College Preparatory High School.

Research

[none]

Publications, Talks/Presentations

June 2021: Discussed the integral definition of the inverse Laplace transform, as well as how to compute the integral using the residue theorem, at an elementary level. (YouTube)

March 2021: Gave a talk on proving the fundamental theorem of calculus at a highschool/pre-real analysis level. (YouTube)

Experience

Expected August 2021 - December 2021: Exam proctoring and grading position for MAP2302 Elementary Differential Equations.

Skills

2+ years of LaTeX experience (high proficiency).

Basic proficiency in Java, C++, expecting to have experience in Python and MATLAB.

Presently working on some neural network basics using Python with guidance from Daniel Wilczak (github.com/danielwilczak101).

Outreach/Service

August 2021 - May 2022: To-be Academic Director of the University Math Society at UF.

May 2021 - present: Transcribing via LaTeX notes from my introductory courses in abstract algebra and complex analysis to be shared with early undergraduates.

March 2021 - present: Moderator for a large online community (exceeding 40,000 members globally) which seeks to stimulate mathematical discussion and interest, as well as to provide assistance with math problems/concepts.

August 2020 - present: Administrator for an online community for mathematics students at UF to discuss mathematics in (created in response to the Covid–19 pandemic).

August 2020 - December 2020: Helped write and type up several solutions for *Concepts in Calculus III* by Miklos Bona and Sergei Shabanov (around 47 pages or so, working with two others to form in total 141 pages of solutions compiled in a solution manual).

August 2019 - February 2020: Started a small unofficial mathematics club (in highschool) where students presented on topics of mathematical interest; there I gave two or three informal talks.

Honors/Awards

2020 National Merit Scholarship Commended

2020 National AP Scholar

Relevant Coursework

*From most recent to earliest, where items marked with a * are expected to take place in the next semester, and items marked with a † are at the graduate or mixed graduate/undergraduate level:*

MAA4211:* Advanced Calculus 1 –

MAS4115:* Linear Algebra for Data Science –

MAT4930†:* Algebra 1 – (as a special topics course)

MAP4305: Ordinary Differential Equations –

MAA4402: Introductory Complex Analysis –

MAS4105: Introductory Linear Algebra –

MAS4203: Introductory Number Theory –

MAS4301: Introductory Abstract Algebra –

MAC3474: Honors Calculus III –

MAP2302: Honors Elementary Differential Equations –

MHF3202: Sets and Logic –