Nobel Manaye

Tutor

- 📞 5407121065 @ nobel.manaye@gmail.com 🕜 linkedin.com/in/nobel-manaye-4011891ba/
- 2773 John F. Kennedy Blvd, Jersey City, NJ 07306

EXPERIENCE

Tutor

HeyTutor

• Working with 20+ students (Ages 5-8) to enhance their analytical and pattern recognition skills through subconscious analysis for improved learning outcomes.

LEAD Computer Science Teacher

Success Academy

- Instructed over 100 students in Python fundamentals and AP Computer Science
- Logged and reported content gaps using Microsoft Excel.
- Coordinated sessions for struggling students via zoom and in person study sessions, achieving an average 92% pass rate.
- Crafted engaging study guides and presentations with Microsoft Word (1 guide, 3
 presentations per week) as a part of the lesson planning process.
- Supervised student trips and events to punctuate their academic experience that involved an average of 20+ students per event.

Software Engineer Intern

FreeWill

- Investigated front-end issues, resolving errors on four pages and addressing 15 tickets using React, Typescript, and HTML/CSS, resulting in a robust web framework that satisfies customer requirements.
- Collaborated in scrum meetings and used Git to remodel three directories of the admin website in Retool, optimizing RESTful API services and improving SQL database access for managing clients' legal information.

Computer Science Tutor

Washington and Lee University

 Tutored 8 students over 30 hours on concepts including data algorithms, computer organization (Assembly), software development (Java), Data Structures (Python), Object Oriented Programming (Python)

Software Optimization Assistant (Research)

Washington and Lee University

- Engineered 66x speedup for gravitational wave computations using cloudoptimized(AWS) parallel processing.
- Awarded the H. Thomas Williams Jr. Award (Dept. of Physics) for developing AWS solutions that accelerated black hole research simulations

PROJECTS

HackFlight (Open Source)

https://github.com/simondlevy/Hackflight/tree/master

- Implemented joystick control for drone simulations, enabling intuitive user input for flight testing and validation.
- Designed a callback-based system to map joystick inputs (axes, buttons) to drone controls (throttle, pitch, roll, yaw).

Highland Defense

A https://github.com/nobelmanaye/Highlanddefense

- Developed a Python-based real-time tower defense game with OOP design, featuring 20 unique sprites with custom attributes and HP systems.
- Implemented optimized game physics, collision detection, and predictive pathfinding for 100 autonomous characters in real-time.

KEY ACHIEVEMENTS



Exceptional Teaching Results

Trained 100+ students in Python across skill levels, with 92% reaching proficiency targets.



Front-End Problem Solving

Implemented 13 React/TypeScript enhancements to Freewill's giving portal, elevating UI fluidity, visual coherence, and accessibility standards.



Optimization

Honored with Physics Department's Williams Award for AWS architectures that enhanced astrophysical analysis.

https://www.wlu.edu/physics-and-engineeringdepartment/opportunities-for-students/awardsand-scholarships/h-thomas-williams-jrundergraduate-research-scholarship

SKILLS

Python	Java	SQL	NumPy	C/C++
Data Structures		RESTful	API A	rduino
Machine Learning		AI	Parallel Computing	
JavaScri	pt Typ	eScript	HTML	css
Seleniun	n WebDrive	er Rea	ict Re	tool
Microsof	ft Suite	G-Suite	SDLC	GitHub
Bash	Linux	AWS EC-	-2 3D	Printing
Autodes	k Inventor	Adobe Premiere Pro		

EDUCATION

B.S. in Computer Science

Washington and Lee University

- Relevant Courses: Software Development (Java), Data Structures (Python), Algorithms, Mathematical Foundations of Data Science (Statistics in R), Probability (Combinatorics, Distributions, Random Functions), Bridges to Advanced Math
- IBM Al Developer Certificate: Prompt Engineering, Feature Engineering, Large Language Models, Machine Learning
- After School Activities:
- <u>Chess Club (Founder)</u>: Established a club with over 100 members to promote chess on campus. Organized promotional Events and tournaments to enhance chess engagement
- African Society (Member): Coordinated events and managed logistics for banquets celebrating African culture

LANGUAGES

English Native	••••
Amharic Native	••••
French Intermediate	••••