

Cheick Amadou

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EDUCATION

Columbia University

B.S. in Computer Science

May 2030

New York, New York

The Early College at Guilford / Guilford College (Dual Enrollment)

HS GPA: 4.828/4.00 | College GPA: 4.00/4.00 | SAT: 1590 | ACT: 36

May 2026

Greensboro, North Carolina

EXPERIENCE

Software Engineer

August 2026 – September 2026

Twinly

Remote

- Building the Windows client for Twinly, a cross-platform desktop AI agent, with an Electron and React interface over a C# agent runtime
- Shipped a pull request improving voice feature clarity; maintain parity with the macOS and iOS clients

Robotics Intern (Gokaraju Lab)

June 2026 – August 2026

North Carolina A&T State University

Greensboro, North Carolina

- Built a ROS 2 control stack in Python and Arduino C for a mobile robot automating BNC cable connection to oscilloscopes
- Designed the robot in Onshape and machined its aluminum chassis with Fusion 360 CAM on a 3-axis CNC mill

Bioinformatics Research Assistant

March 2025 – May 2026

Illinois State University

Remote

- Built Python pipelines to clean FASTA protein sequence data for a phosphorylation site prediction study
- Generated sequence embeddings with the ESM2 language model to train downstream classifiers

Co-Captain & Lead Programmer

March 2025 – May 2026

FTC Robotics Team 6183 | github.com/FTC-6183/FTC6183-DECODE

Greensboro, North Carolina

- Co-led a 14-person team, owning the full Java stack including autonomous routines and driver-control systems
- Won 1st Place Innovate Award at the Southeast Guilford State Qualifier and nominated for FIRST Dean's List

Research Assistant

July 2024 – May 2026

Joint School of Nanoscience and Nanoengineering (NC A&T)

Greensboro, North Carolina

- Built a PySide6 control interface with live sensor output and logging for a \$30,000-grant vesicle filtration system

Math Instructor

June 2024 – April 2026

Mathnasium

Greensboro, North Carolina

- Instructed 20+ students per session in a drop-in learning center, covering material from arithmetic through calculus

PROJECTS

AutoCable | *Python, C, ROS 2, Linux* | github.com/CheickAmadou/AutoCable

- Engineered teleoperation for a mecanum-drive robot: ROS 2 (Jazzy) nodes on a Jetson Orin Nano bridged over serial to an Arduino Mega 2560 running 50 Hz PID velocity control
- Built a dependency-free browser control room (Python standard library) with virtual joysticks, FPV touch controls, and live Intel RealSense D405 color and depth streams
- Implemented a triple-redundant dead-man safety chain (browser heartbeat, node liveness, serial watchdog) that stops the robot within one second of any failure, verified by fault injection

TECHNICAL SKILLS

Languages: Python, Java, C (Arduino), SQL

Frameworks & Tools: ROS 2, PySide6, Onshape, Fusion 360

Coursework (Guilford College): Data Structures & Algorithms, Operating Systems, Database Systems, Discrete Math, Linear Algebra, Multivariable Calculus, Differential Equations, Modern Algebra

ADDITIONAL

Awards: Y Combinator Startup School, invite-only cohort, San Francisco (2026); CMU Summer Academy for Math and Science (5% acceptance rate), Best Chemistry Presentation (2025), Jane Street's NYC Mystery Planet (2nd Place), Citadel Trading Campus Competition (1st Place), HOSA State Biotechnology 5th Place, Science Olympiad State Circuit Lab 8th Place

Volunteering/Teaching: Discrete Math Teaching Assistant, Guilford College (2025); designed and taught an online Intro to Python course (SMATH Tutors, 2024), Guilford County Service-Learning Youth Council (Equity Chair), Verizon Innovative Learners (STEM Achievers Volunteer), Tech Refuge (Treasurer)