

# Nathanael Tewodros

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## EDUCATION

**Proficient Languages & Skills: C++, Python, Java, Artificial Intelligence, Data Structures**

**University of Illinois at Urbana-Champaign — 2022 - Fall 2025 (est.)**

Grainger College of Engineering B.S. in Computer Science - GPA: 3.7/4.0

Completed Technical Courses: CS 124, CS 128, CS 173, MATH 241

Current Technical Courses: CS 222, CS 225, CS 233, PHYS 211

**Thomas Jefferson High School for Science and Technology (TJHSST) — 2018 - 2022**

## RESEARCH EXPERIENCE

**Generating High School Schedules with a Genetic Algorithm — 2021 - 2022**

Researched & tried to create a genetic algorithm to make high school schedules, managing real-world data and creating custom data types to represent it

**Sugar Concentration's Effect on *Drosophila melanogaster* Chemotaxis — 2018 - 2019**

Utilized Raspberry Pi & Bash scripting to take photos of flies regularly, collaboratively created paper and presentation for results

**Computer-Aided Design (CAD) Robot Project — 2018 - 2019**

Using restricted materials and Arduino code, built a robot to navigate through a maze

## VOLUNTEER

**Students for the Ethical Advancement of Technology & Science (SEATS) — 2019 - 2021**

Facilitated modules for young students to discuss the ethics of STEM topics, allowing them to imagine themselves as various people and argue on their behalf

## EXTRACURRICULARS

**Black, Indigenous, and Latinx in Tech (B[U]ILT@UIUC) — 2022 - Present**

**Engineering Council (EC@UIUC) — 2022 - Present**

Engineering Freshman Council (EFC), Service Committee (2022 - Present)

**AI4ALL Changemaker — 2021 - Present**

**Association for Computing Machinery (ACM@UIUC) — 2022**

SIGCHI, SIGAIDA, & SIGPwny (2022)

**TJHSST Curricular Bands — 2018 - 2022**

Award for Distinguished Leadership and Service (2021 - 2022) - Band Council Music Librarian (2020 - 2022)

**Global Health Initiative (TJHSST GHI) — 2018 - 2022**

Vice-President (2021 - 2022) - Publicist (2019 - 2021)

**Winter Drumline (TJDL) — 2018 - 2022**

Award for Most Improved Honorable Mention (2021 - 2022) - Bass Drum Section Leader (2019 - 2020) - Award for Most Outstanding Rookie (2018 - 2019)

**Marching Colonials (TJMC) — 2018 - 2021**

Field Drum Major (2020 - 2021) - Quartermaster (2019 - 2021) - Award for Most Outstanding Rookie Honorable Mention (2018)

## ACADEMIC AWARDS & ACCOMPLISHMENTS

**AP Scholar with Distinction - Carnegie Mellon Chapter AI4ALL Graduate - George N.**

**Parks Drum Major Academy Graduate - National Merit Scholarship Program Letter of**

**Commendation - Funding Approval Recipient through a Fairfax County Public Schools**

**Grant from the National Oceanic and Atmospheric Administration**