KATE MALLON

Computer Science & Artificial Intelligence

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EDUCATION

Bergen County Technical HS
Teterboro Campus
Expected June 2027 • GPA 3.7

Three years of computer science and one year of dedicated AI coursework.

Coursework: AP Computer Science Principles, AP Calculus AB, AP Calculus BC, AP Physics 2, Introduction to Artificial Intelligence

AP Scores: Calculus BC **5** • Calculus AB **4** • CS Principles **4**

Certification: NOCTI Computer Science Certification (2026)

SKILLS

Languages: Python, Java, C++, JavaScript, HTML/CSS

Web & Backend: Flask, SQLAlchemy, SQLite, Jinja2, REST APIs

Data & AI: pandas, NumPy, Google Gemini API

Tools: Git & GitHub, VS Code, Render

Spoken: Conversational Spanish

ACTIVITIES

Spanish Honor Society
Member — academic achievement in Spanish

ACRA Rowing — Ringwood, NJ
Competitive sculler, 2023–Present

Advanced Improv Troupe
River Dell troupe, 2017–2025

Band & Chorus
Band member; Chorus alto, 2021–2025

WORK & SERVICE

Soccer Referee
River Dell Soccer Assoc., 2024

Babysitter
Multiple families, 2022–Present

Community Service
25+ volunteer hours — park clean-ups, food drives, community events

PROFILE

Rising senior at Bergen County Technical High School – Teterboro Campus, specializing in computer science and artificial intelligence. Designs, builds, and ships real software — from a full-stack web app with an AI integration to machine-learning models and websites for community nonprofits.

PROJECTS

BookFlow — Full-Stack Reading Platform — Python / Flask

- Built a classroom reading tracker with user accounts, a searchable book catalog, points, and leaderboards using Flask, SQLAlchemy, and SQLite
- Integrated the Google Gemini AI API for personalized book recommendations and the Open Library API for catalog data
- Added a teacher dashboard to manage classes, track progress, and award points; templated with Jinja2 and deployed live on Render via Gunicorn

Nonprofit Websites — NeuroCove Foundation, TD1 Smiles, NextGenVotes

- Designed and deployed multi-page websites (HTML5, CSS, JavaScript) for three community nonprofits
- NeuroCove Foundation: a 7-page site with ~3,100 lines of custom CSS, Google Forms intake, and embedded social feeds
- Owned each build end to end — layout, styling, copy, and forms — producing responsive, dependency-free static sites

Grade Prediction Model — Python, pandas · Bergen Tech Hackathon 2024

- Built a supervised machine-learning model to predict student grades from a ~600-record dataset
- Handled data preparation and feature processing in Python with pandas

Interactive Coding Game — JavaScript · Bergen Tech Hackathon 2024

- Developed an interactive game reinforcing data structures and programming logic

COMPETITIONS & PROGRAMS

CyberPatriot — Cybersecurity Competition — Gold, State Round

- Competed on a team hardening systems and solving security challenges under timed conditions

Juni Learning — CS & AI Coursework — 2019–2025

- Completed multi-year, project-based instruction in Python and C++, from fundamentals to applied problem-solving