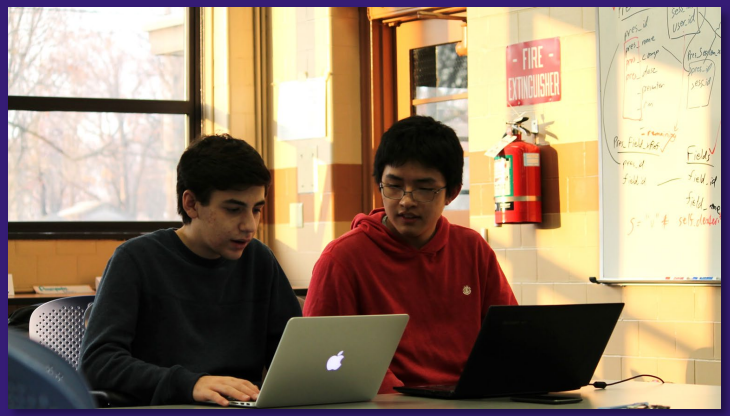
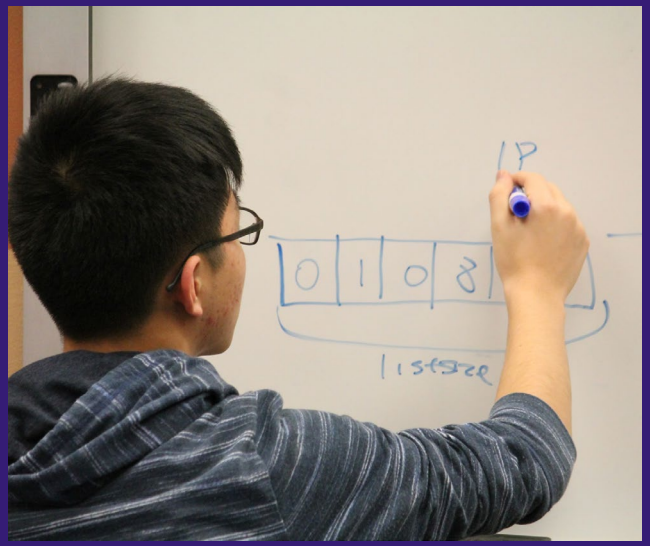
ATCS @ BCA





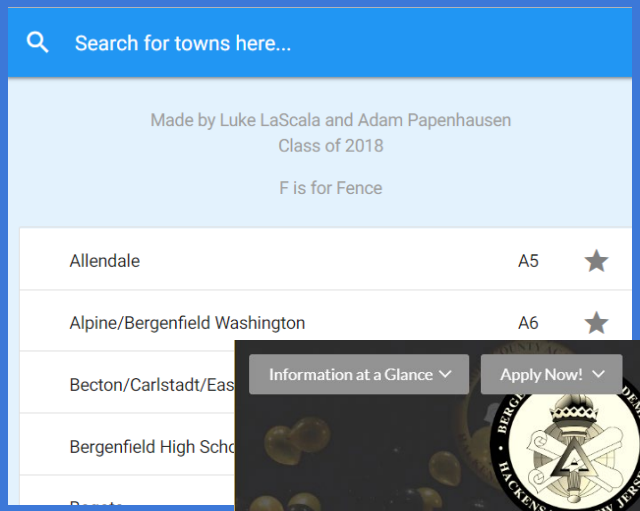
ATCS - Who are we?

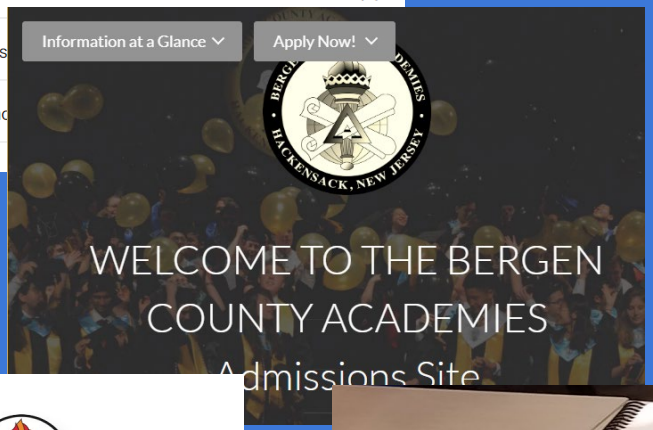
A Diverse Group

- Builders
- Competitors
- Advocates
- Innovators
- Learners
- People who serve

Though we are all different, we are united by excitement about technology.

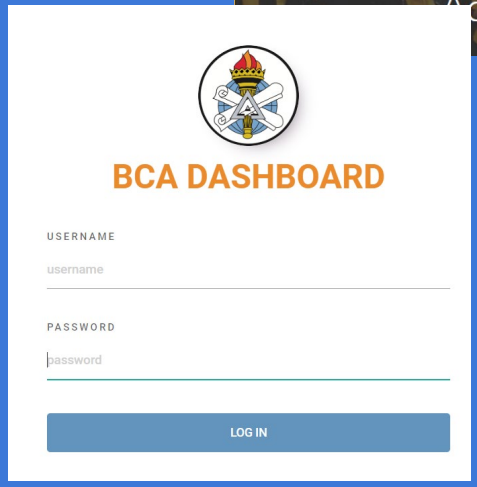
We are **Builders** and **Innovators**

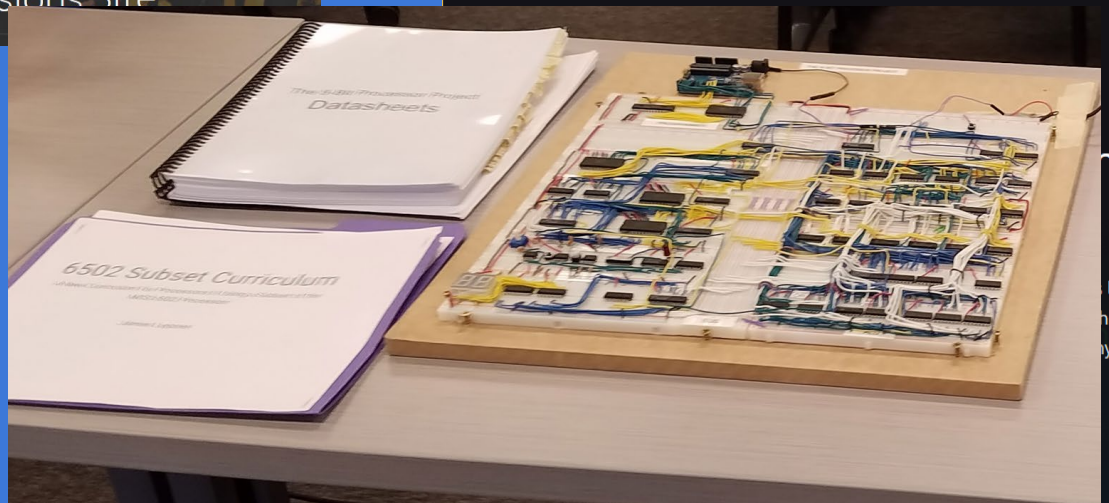




Buildings tools and applications is part our DNA.

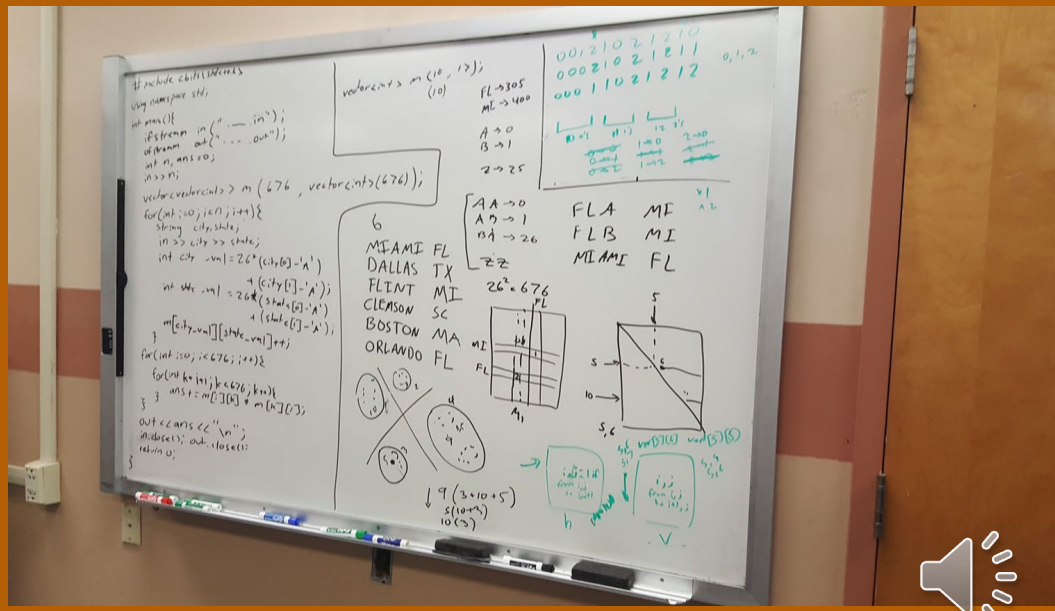
We don't just learn computer science, We DO computer science.





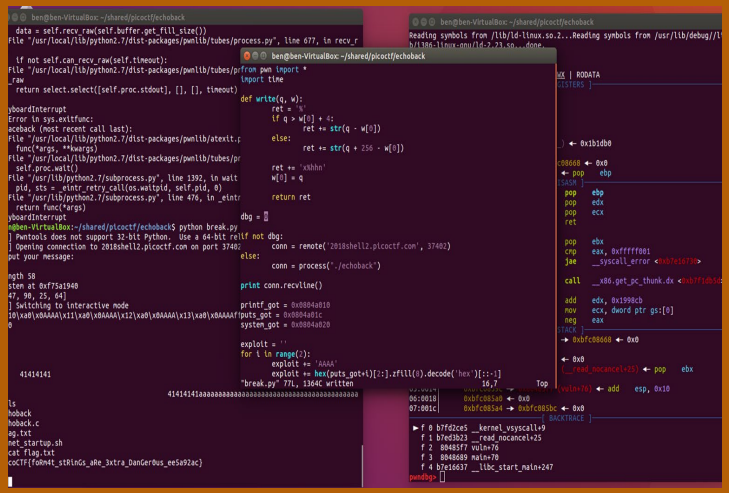
We are **Competitors**

- Fun challenge.
- Sharpen our skills.
- Go beyond the curriculum.



Recent Competitions

- American Computer Science League (ACSL)
- Technology Student Association (TSA)
- CyberStart
- picoCTF
- Canadian Computing Competition
- USA Computing Olympiad
- Congressional App Challenge



We are **Learners**: Core Curriculum

Guiding Principles

- Students gain a broad, comprehensive understanding of how computers work.
- Continuously updating core curriculum to align with best practices and latest research.

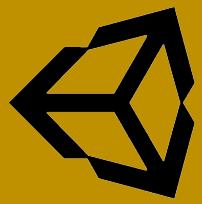
Current Curriculum

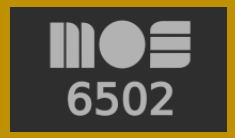
9th	10th	11th	12th
AP Computer Science A Control Structures, Methods, Objects and Inheritance, Arrays and ArrayLists Aligned to College Board's AP Computer Science A Curriculum	**Applied Computer Science** Algorithms and Data Structures Relational Databases Web Application Development	**Adv. Topics in Computer Science** Boolean Algebra Functional Programming Lambda Calculus Computational Theory	**CS Capstone** Year-long group project in which students build a product for a client. Emphasis on project management skills, including Agile.

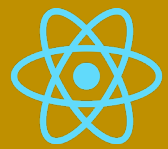
We are **Learners**: Optional Electives

- C Programming
- Machine Learning
- Artificial Intelligence
- Assembly Language (6502)
- Sockets and Networking
- MERN Stack Web Development
- Software Engineering in C#/Unity
- Processor Design and Architecture
- More are always being developed, plus electives from the other academies!

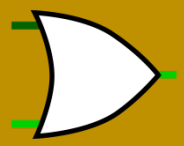











Frequently Asked Question

1. Do I still take biology, chemistry, gym, math, etc?
ABSOLUTELY! All BCA students must take the core courses required of all NJ high school students.

2. Can I take electives in other areas, or am I limited to Computer Science?
You are encouraged to take electives across the school. Every BCA student is free to do this. You are in no way limited to computer science.

Frequently Asked Question

I have not programmed before. Can I still succeed in ATCS?

ABSOLUTELY!

In a typical 9th grade class:

- 50% have little to no coding experience.
- 35-40% have a bit of experience
- 10-15% have significant experience

** Interest in technology and in using technology is the key!

ATCS - We are a **Community**