

# Joshua Baker

5137 Craigs View  
Pipersville, PA 18947  
267-680-4410

210 Lake Street, Apt. 06F-4  
Ithaca, NY 14850  
jwbaker027@gmail.com

## EDUCATION

**Cornell University**, College of Engineering, Ithaca, NY May 2027

- Bachelor of Science, Mechanical Engineering; Minor in Music. GPA: 4.11

**Central Bucks High School East**, Doylestown, PA Jun 2023

- GPA: 4.32
- SAT Score: Total 1560 | Math 800 | Reading and Writing 760
- Recipient of the National Merit Award

## EXPERIENCE

**Cornell University**, *Teaching Assistant*, Ithaca, NY Aug 2025 – Present

- Led weekly discussion sections for Dynamics, teaching course content and problem-solving techniques
- Provided office hours to aid students in coursework, learning outcomes, and MATLAB

**Hutchinson Industries, Inc.**, *Engineering Intern*, Trenton, NJ Jun 2024 – Aug 2024

- Designed experiments on a novel system to wirelessly collect strain data from aluminum wheels
- Authored and revised documentation for material, chemical, and fatigue testing procedures
- Performed various tests including wheel fatigue testing, crack inspection, and rim runout

**Private Tutoring** Sep 2021 – May 2024

- Tutored high school students in AP Physics and AP Calculus classes
- Helped students gain understanding and mastery of complex topics within advanced courses
- Achieved grade improvements of 10 to 20 percent

## PROJECTS & EXTRACURRICULARS

**Cornell Jazz Ensemble**, *Lead Trumpet*, Ithaca, NY Sep 2023 - Present

- Acted as the leading voice of the ensemble, defining sound and style
- Played concerts with leading jazz musicians, such as Gerald Clayton and Sara Gazarek

**Product Design Project**, *Team Member* Jan 2025 – May 2025

- Worked on a four-person team to create a novel device to help people remember their keys
- Iteratively designed and modeled a geared locking mechanism and mock-up in Autodesk Fusion 360
- Fabricated the device via 3D printing and presented it to an audience

**Central Bucks East Band**, *Brass Captain and Treasurer*, Doylestown, PA Jul 2019 - May 2023

- Performed with the Pennsylvania All-State Band after a series of four competitive auditions
- Acted as the lead trumpet player in the Jazz Ensemble, Symphonic Band, and Marching Band
- Led musical rehearsal and warm-up for the marching band brass section

## RELEVANT COURSES

Mechanics of Materials\*, Fluid Mechanics\*, System Dynamics\*, Dynamics, Statics and Mechanics of Solids, Thermodynamics, Intro Mechanical Design, Linear Algebra, Differential Equations, Multivariable Calculus, Engineering Computation, Data Science (\*Currently Enrolled)

## SKILLS

Autodesk Fusion 360, Python, MATLAB, data analysis, Microsoft Office Suite (Word, PowerPoint, Excel), Google Suite (Docs, Slides, Sheets)