

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 , <i>Teaching Assistant</i> , 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. , <i>Engineering Intern</i> , 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 , <i>Lead Trumpet</i> , 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 , <i>Team Member</i>	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 , <i>Brass Captain and Treasurer</i> , 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)