

Ethan Bloom

ethantbloom@gmail.com | 412-315-9130 | www.linkedin.com/in/ethan-bloom-002

Education

The Pennsylvania State University

Bachelor of Science in Computer Engineering

Major GPA: 3.90; Cumulative: 3.72

University Park, PA

August 2021 – May 2025

Dean's List (Semester 1 – Current)

Internship Experience

Project Engineering Intern

ProMinent Fluid Controls, Inc.

Pittsburgh, PA

May 2023 – Present

- Developed online parametric modeling system for customer and sales applications, allowing for higher customer acquisition and retention rates.
 - Created spreadsheet tools for Project Engineering calculations, allowing for significantly decreased calculation times.
 - Developed Application Guideline documents of Best Engineering Practices for chemical feed systems regarding various chemical applications, metering pumps, and chemical dosing skid systems.
 - Created and reviewed detailed engineering documents for customer submittals for multiple projects, including multi-million-dollar water treatment facilities.
 - Served as a liaison between Application and Project Engineers in the development, design, and production of custom engineered solutions for various customers.
-

Leadership Experience

Shift Manager

Jersey Mike's Subs

Pittsburgh, PA

May 2021 – January 2023

- Trained 10 new employees and coached existing employees on new positions, leading to a 30% order throughput increase.
 - Built team cohesion through leadership skills and effective communication.
 - Directed coworkers in various positions to maximize efficiency and sales volume while maintaining a high level of customer satisfaction
 - Addressed customer requests through active listening, clear communication, and problem resolution, increasing customer gratuity by 50% on average.
-

Project Experience

Project Engineering Design Team, *Team Lead*

August 2021 – December 2021

- Prototyped a design for rail-line freight transportation using cost-effective and environmentally conscious principles with a team of four.
- Analyzed design impact and stakeholder considerations
- Developed and reviewed cost estimations and financial analyses
- Created and presented slide presentation briefings

Sound Equalizer Device, *Electronics and Circuit Design*

April 2023 – May 2023

- Simulated and prototyped circuit using NI Multisim software
- Designed device to allow for complete tone control, stereo mixing, and volume control of audio input
- Drafted report documentation and testing specifications

MIPS CPU Design, *System Hardware Design*

May 2023 – August 2023

- Designed and implemented a five-stage, in-order pipeline design with a MIPS-based ISA
- Modeled the system using Verilog HDL
- Analyzed design performance and architectural tradeoffs

Course Scheduler, *Application Development*

November 2023 – December 2023

- Developed desktop application using the Java language and the Derby database management system

- Designed and created a fully featured course scheduler application, allowing for administrative and student use functionality
 - Implemented full database integration for semester, class, and student information
-

Involvement

IEEE – Penn State Student Chapter, *Member*

February 2023 – Present

Blue and White Society – Penn State Alumni Association, *Member*

August 2023 – Present

ESTARs – Engineering Student Tours and Resources, *Member*

November 2023 – Present

- Led tour groups and informational sessions for prospective and accepted students in the College of Engineering
-

Technical Skills

- Familiarity with programming languages Python, Java, C/C++, MATLAB, Swift, and Visual Basic
 - Full-stack Web Development with Django Framework in Python
 - Desktop Application Development with Java and database integration
 - System Programming with assembly instructions and the C programming language
 - System performance monitoring, benchmarking, and evaluation experience
 - Computer architecture design using and hardware description languages
 - Analog and digital electronic circuit design, including combinational and sequential logic systems and state machines in computer and hardware lab environments
 - Proficiency with electronics bench testing equipment
 - Engineering and product design in AutoCAD, AutoDesk Inventor, and SolidWorks
 - Microsoft Excel proficiency
 - Agile project development experience
 - Technical Report Writing
-