

AARON DUBOIS

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Education

Swarthmore College | B.S. in Engineering; B.A. in Physics - **GPA: 4.0** 2022 - 2026

Coursework: Mechanics, Optics, Quantum Mechanics, Differential Equations, Foundations of Leadership, Electromagnetism, Special Relativity, Thermodynamics, Electrical Circuit Analysis, Data Structures & Algorithms, Linear Algebra, Biomechanics

Projects & lab work: (visit duboisprojects.github.io/projects/ for visuals)

Designed, machined, soldered, and assembled a portable solar-powered USB charger using CAD, machinery, and necessary hardware.

Designed experiments to investigate a variety of established theories that involved constructing electronic circuits, building trusses, and launching projectiles.

(In Progress) Design and build a fixed-wing vertical take-off and landing hybrid drone that uses two rotating brushless propellers.

James Madison High School | GPA: 4.50; Unweighted GPA: 3.97 2018 - 2022

National Merit Finalist; AP Scholar with Distinction; Math & Computer Science Tutor; Olympic Development Program VA Soccer Team; Varsity Soccer; Various Honor Societies

Experience

Pression, LLC | Product Development Engineer Intern | *Coatesville, PA*

May 2023 - July 2023

- Designed and prototyped peripheral components for Pression's medical device, including a hospital bed mount to secure tubing for compressed air during treatment and physical data interface ports, using computer aided design (CAD) software and 3D-printing methods.
- Rearchitected Graphical User Interface to increase speed of displays, reduce communications bandwidth requirements, and improve codebase for future development.
- Identified and drafted an application for a startup incubator on behalf of Pression and supported the CEO with the company's pitch deck.
- Authored protocols and processes for software requirements, release, version control, and verification for use in the Pression Quality Management System.

Comma | Co-Founder | *Swarthmore, PA*

February 2023 - September 2023

- Won 2nd place at SwatTank 2023 for best startup pitch.
- Developed prototypes of user and library interfaces and initial marketing materials for user and library outreach.
- Established relationships with 8 libraries to provide physical books and beta test Comma's software.
- Comma is intended to increase book accessibility.

Aesop Academy & Advisory | Project Management & Data Analytics | *Philadelphia, PA*

October 2022 - January 2023

- Fashioned final Excel client deliverable in course record time.
- Selected to present strategic recommendations for a sample company.

Skills & Activities

Hardware & Tools – CNC and conventional machinery; Soldering; PIC microcontrollers; Arduino; Welding; Woodworking

Technologies & Frameworks – Fusion 360 CAD/CAM; Arduino IDE; VSCode; Microsoft Office; MPLab IDE; Git; Notion

Programming Languages – C++; Python; Matlab; Java; C; SQL; LaTeX; Linux

Activities – Design Build Fly Club; Club Soccer; Practical Philosophy; Intramural Dodgeball Champion; Club Squash