RYAN PENG

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SKILLS

Code

MATLAB	HTML/CSS
Python	TS/JavaScript
Java	C

CAD/CAM

SolidWorks, Fusion 360, ABAQUS (FEA), GD&T, Rhino, SketchUp

Shop

Rapid Prototyping, CNC, Woodwork, 3D Print, Arduino, Electronics, Laser Cut, Basic Metalwork & Machining

Live/Media

DaVinci Resolve, Final Cut Pro X, Pro Tools, QLab, ETCnomad

LEADERSHIP

College Curriculum Council
Voting Member | Oct 2022 – present

Better World by Design Conference
Co-Chair, Financial Signatory | Nov 2021 – present

Meiklejohn Peer Advising
First-Year Advisor | Aug 2023 – present

The Critical Review
Editor | Sep 2021 – present

Formerly
Brown/RISD STEAM
Design for America RISD | Brown
TEDxBrownU

AWARDS

Eagle Scout
Boy Scouts of America

Presidential Scholar Semifinalist
US Department of Education

PROJECTS

Everyday Carry Smart Pill Dispenser
Team | Sep 2023 – Dec 2023

Leveraged user and market research to tackle pill discrimination, dispensing, and intake control. Prototyped a novel mechanical assembly addressing constraints elegantly and user-first.

Brass Lamp
Solo | Sep 2022 – Dec 2022

Experimented with form-first ideation to develop a seamless light fixture, which was adapted to hand-manufacturing processes to produce a physically aesthetic and electronically functional lamp.

EDUCATION

Brown University | 3.98 GPA

Providence, RI | Graduating May 2025

- Pursuing **Design Engineering, Sc.B.** and **Computer Science, A.B.**
  Relevant coursework includes: Design of Mechanical Assemblies, Computer-Aided Vis. and Design, Solid Mechanics, Thermodynamics, Dynamics and Vibrations, Robotics, Design Brief, Human Factors, Data Structures and Algorithms, Computer Systems, Object-Oriented Programming, User Experience and Interfaces, Multivariable Calculus, Statistical Inference

Rhode Island School of Design

Providence, RI | Cross-Registration

- Studio and seminar coursework in **Industrial Design**, **Theory and History of Art and Design**

EXPERIENCE

Brown U. School of Engineering | Head Teaching Assistant

ENGN0032 Intro to Engineering: Design | Providence, RI | August 2022 – present

- With one co-HTA, manage 50+ TAs, homework, projects, and office hours for 350+ students.
- Make critical decisions regarding organization and training leading up to and during the course.
- Lead weekly studio, hold office hours, and mentor group projects on design thinking, statics.

Ocean Sunfish Research Project | Student Researcher

Monterey, CA (remote) | May 2023 – August 2023

- Analyzed, managed, and populated a citizen science database of Galapagos ocean sunfish used for non-invasive computer vision tagging.

St. Jude Children's Research Hospital | Undergrad. Researcher

Chi Lab | Memphis, TN | May – August 2022, 2023

- Adapted Linux high-performance computing cluster data analysis suite to a user-facing, open-source Windows standalone application.
- Genotyped up to 750 murine samples by polymerase chain reaction (PCR) and agarose gel weekly. Performed sgRNA cloning and immunostaining on demand.

Governor's School for Emerging Tech | Student Researcher

Wilson Lab | Cookeville, TN | June – July 2019

- Performed thermomechanics and cryogenics research of lead-free SAC305 solder including finite element analysis (FEA), tensile testing, electron microscopy, and thermal cycling.

LANGUAGES

Latin

Mandarin