

JULIAN VALLYEASON

INFORMATION



Project Portfolio

www.vallyeason.com/Projects



LinkedIn

www.linkedin.com/in/julian-vallyeason-b57446129



GitHub

www.github.com/jvallyea

SKILLS

Languages:

- English (fluent)
- French (fluent)
- Mandarin (working)

Software:

Microsoft Office, Adobe Photoshop, Adobe Premiere, Autodesk Inventor, SolidWorks, EAGLE, Bloomberg (BESS), Mathematica

Programming:

- MATLAB (advanced)
- Python (proficient)
- Java (proficient)
- HTML5/CSS/Javascript (proficient)

Music: Royal Conservatory of Music Piano Performance Level 10 (First Class Honors)

STUDENT ACTIVITIES

Power Team Lead, Brown Satellite Team

Designed PCB boards with solar cells. Conducted LiFePO₄ heat and vacuum testing. Developed conformal silica gel coating procedure (patent pending).

Community Organizer, Hack@Brown

Engaged in sponsor outreach to Google, pMD, and Facebook. Managed hardware inventory operations and developed judging criteria.

Lab TA, Brown Dept. of Engineering

Designed 4 core labs for ENGN 0040: Dynamics, and held open TA hours to assist students.

Grader, Brown Dept. of Mathematics

Graded weekly assignments and exams

SELECTED PROJECTS

Louis – A Portable Braille Reader

Designed a 3D-printed dynamic braille device integrated with a Raspberry Pi and PiCam

NewsMap – Visualizing Global Headlines

Designed using Python, HTML/CSS, and MapBox

Quadcopter Obstacle Course

Developed visual recognition and flight system for Crazyflie Nano Quadcopters. Please visit [goo.gl/jyDyCW]

EDUCATION

Brown University – Sc.B Applied Math – Economics and Engineering (Chemical)

Providence, RI 2016-2020

GPA: 4.0 (out of 4.0)

Coursework: Differential Equations, Thermodynamics, Real Analysis, Organic Chemistry, Statistics

Thomas Jefferson High School for Science and Technology

Alexandria, VA 2013-2016

SAT: 2400

ACT: 36

GPA: 4.53

WORK EXPERIENCE

■ Cofounder and Product Engineer, Cloud Agronomics

Providence, RI | Fall 2016 – Present

(www.cloudagronomics.com)

- Founded a solar-powered UAV startup to provide land imaging services to farmers to improve crop yield
- Raised over **\$15,000** in UAV financing: Social Innovation Grant, Penn Aerospace Finalist (3rd), Startup Storm (2nd), HCRI Microgrant, Princeton Envision Entrepreneurship Finalist, **Hult at Brown (1st)**
- Designed CAD splines for airfoil testing in SolidWorks and researched molecular-sensing imaging technology at the Kellner Lab at the Brown Institute for Environment and Society (IBES)

■ Data Analytics Intern, World Resources Institute

Washington DC | Summer 2017

- Developed text analysis tools using Google Jigsaw and social media API's to map agroforestry sentiment
- Interviewed members of the Global Restoration Council and UN Food & Agriculture Organization (FAO)

■ Lead SAT Instructor, Perfect SAT-ACT Tutoring

Global | Summer 2016 – June 2017

(<https://www.perfectsatact.com>)

- Lead online SAT tutoring sessions and built 12-course test preparation curriculum

■ Political Affairs Intern, US-Asia Institute

Washington DC | Winter 2017

- Represented the US-Asia Institute at conferences (AEI, Carnegie Endowment) and congressional hearings
- Corresponded with legislative staff (congress confirmation hearings) and organized delegations to Asia

ACADEMIC RESEARCH AND AWARDS

■ Goldman Sachs Data Visualization – 2nd Place, HackMIT

Cambridge, MA | September 2017

(<https://newsmap2017.herokuapp.com>)

- Developed corporate news, stock trading, and econometric visualizations in real time

■ Research Intern, JUMP Lab – Founder, VoltWorks

Alexandria, VA | Fall '14 – Spring '17

- Developed mathematical model to stabilize fuel cell power under abiotic stress with different substrates

Awards: Virginia State Science and Engineering Fair (1st – 2015), Genius Olympiad Finalist (2015, tJSTAR (2016), Princeton Envision Entrepreneurship Finalist (2nd - 2016), Tiger Launch Regional Finalist (2017)

■ Research Intern, Univ. of Maryland (Herberholz Lab)

College Park MD | June '15 – Feb '16

- Conducted research on the role of sensory signals in crayfish dominance hierarchies
- Developed MATLAB script to automate video analysis of crayfish agonistic interactions

Awards: US Public Health Service Distinguished Project Award (2016), Virginia Tech National Capital Region Best Project (2016), Human Factors and Ergonomics Society 2nd Place Award (2016)

COMMUNITY SERVICE

■ Cofounder, STEMWISE (501c3 nonprofit)

Washington DC | Fall '14 – June '16

- Founded a nonprofit STEM tutoring organization in community centers across the Washington DC area
- Actively tutored in 3 community centers for over 2 years

Clients: Schools and Community Centers in Fairfax, Loudon, and Arlington; Muslim-American Center

■ Volunteer Instructor, Montfort Youth Center

Malacca, Malaysia | Summer 2014

- Taught English at a nonprofit institution focused on giving underprivileged students across Malaysia access to a technical education

INVITED CONFERENCES AND PROGRAMS

Early Engagement Program, AQR (Applied Quantitative Research)

Jan. 2018 – Invited to meet and explore quantitative finance research opportunities through a hedge fund

Startup@Brown, Brown Entrepreneurship Program

Sep. 2017 – Invited to present UAV research and entrepreneurial journey with conference attendees

Innovation Dojo, Brown Entrepreneurship Program

Spring 2017 – A semester-long workshop to develop a venture, cumulating with a final presentation

Ivy League Policy Summit, Ivy Council

March 2017 – A weekend conference drawing 20 delegates from each Ivy League school to develop policy recommendations for the coming academic year. Worked in the Mental Health policy track.

Princeton Envision, Princeton University

December 2016 – One of 5 students selected from 150 to present microbial fuel cell research to judge panel