Julian Vallyeason

Email: julian_vallyeason@brown.edu | **Phone:** (571)-296-5740 |

EDUCATION

Brown University Providence, RI Class of 2020
GPA: 4.0 (out of 4.0) **Concentration**: Sc.B Chemical Engineering, Applied Mathematics-Economics
Relevant Coursework: Partial Differential Equations, Thermodynamics, Electrodynamics, Organic Chemistry, Materials Science

Thomas Jefferson High School for Science and Technology Alexandria, VA 2013-2016
GPA: 4.53 (4.0 scale weighted), **SAT: 2400**; **ACT: 36**;

EXPERIENCE

Cloud Agronomics, *Cofounder and Product Engineer* (www.cloudagronomics.com) Rhode Island, Sep 2016 - Present
- Founded a solar-powered UAV startup to provide land imaging services for farmers to improve crop yield and lower energy use
- Raised over **$15,000** in UAV financing: Social Innovation Grant (Explore + Expand), Penn Aerospace Finalist (3rd), Startup Storm (2nd place), Humanity-Centered Robotics Initiative MicroGrant, Princeton Envision Finalist, **Hult Prize at Brown (1st)**
- Designed CAD splines for airfoil testing in SolidWorks; wrote Python data-collection scripts and performed analysis in ImageJ
- Studied maximum power-point tracking and battery optimization algorithms at the Humanity-Centered Robotics Initiative
- Researched molecular health-sensing imaging technologies with the Kellner Lab at the Institute for Environment & Soc. (IBES)

World Resources Institute, *Data Analytics and Movement Building Intern* Washington DC, Summer 2017
- Developed text analysis tools using Google Jigsaw and social media API's to engineer a data-driven strategy for forest restoration
- Conducted interviews with leading forestry and agriculture activists at ICRAF, IUCN, and the United Nations (FAO)

US-Asia Institute, *Political Affairs Intern* Washington DC, Winter 2017
- Represented USAI at briefings and congressional hearings; corresponded with legislative staff and delegations to Asia

ACADEMIC RESEARCH AND AWARDS

Goldman Sachs Data Visualization – 2nd Place (HackMIT) Cambridge Massachusetts, Sep 2017
- Developed corporate news, stock tracking, and econometric visualizations in real time (https://newsmap2017.herokuapp.com/)

JUMP Lab: Microbial Fuel Cell Engineering, *Engineering Research Intern* Alexandria VA, Sep 2014 – June 2016
- Developed a mathematical model to stabilize fuel cell power output under abiotic stress
- VSSEF (1st); Genius Olympiad International Finalist, Princeton Envision Finalist (2nd Place); TigerLaunch Regional Finalist

UMD (Herberholz Lab): Neuroscience Research, *Research Intern* College Park MD, June 2015 – Feb 2016
- Studied and automated crayfish interactions using MATLAB to measure changes in aggression following sensory stimulation
- US Public Health Service Distinguished Project Award (2016); Virginia Tech National Capital Region Best Project (2016)

COMMUNITY SERVICE AND OUTREACH

Hack@Brown, *Community Organizer (Experience Team)* Rhode Island, Sep 2017 - Present
- Engaged in sponsor outreach, logistics (food, prizes, venue), and inventory operations

Montfort Youth Center (Malaysia), *Volunteer Instructor* Malacca Malaysia, Summer 2014
- Taught English at a nonprofit institute focused on giving underprivileged students across Malaysia access to a technical education

ACTIVITIES, SKILL SETS & INTERESTS

Languages: English (native), French (Professional), Mandarin (Limited Working Proficiency)

Computer: Microsoft Office, Adobe Photoshop / Illustrator, Autodesk Eagle, SolidWorks, Bloomberg (BESS), Wolfram Mathematica

Technology: MATLAB (advanced), Python (proficient), Java (proficient), HTML5/CSS (proficient), Javascript (working)

Music: Royal Conservatory of Music Piano Performance Level 10 (First Class Honors); Music Theory-Harmony (Honors)

University Student Organizations and Jobs:

Power Systems Leader, **Brown Satellite Team (Brown Space Engineering)**
Designed PCB boards with solar cells. Conducted LiFePO4 heat and vacuum testing. Developed conformal silica gel coating procedure

Business Associate, **Brown Journal of World Affairs**
Managed and produced website content for outreach and information dissemination. Responsible for the journal's administrative liaisons

ENGN 0040 (Dynamics and Vibrations) Teaching Assistant (TA), **Department of Engineering, Brown University**
Designed four core laboratory experiments over the semester and held open TA hours to assist students in engineering labs

Math 0090 (Calculus) Grader, **Department of Mathematics, Brown University**
Organized group tutoring sessions for students in Single-Variable Calculus and graded weekly assignments and exams