Theophile Jean Bence Fedronic

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Education

University of California, Berkeley – College of Engineering Expected May 2018
Bachelor of Science in Mechanical Engineering
Minor in Energy Engineering
Carlmont High School
4.0/4.0 Unweighted GPA

Coursework & Skills

- Mechanical Behavior of Engineering Materials
- Fluid Mechanics | Solid Mechanics
- Dynamic Systems and Feedback
- Visualization for Design | 3D Modeling for Design
- Introduction to Manufacturing and Tolerancing
- Structure and Interpretation of Computer Programs
- Introduction to Computer Programming for Scientists and Engineers
- Energy Sources, Uses, and Impacts
- Mechanics and Wave Motion | Heat, Electricity, and Magnetism
- Multivariable Calculus | Linear Algebra and Differential Equations

AutoCAD, SolidWorks, FEA
Shop Training, 3D Printing
Python, Scheme, Sequel
HTML5, CSS3, JavaScript
Matlab, Simulink

Projects

WaterSeer Collider Competition - 1st Place Spring 2016
- Given a $300 budget to design, build, test, and present a system that can passively condense water from ambient air
- Responsibilities included mount/panel design, calculations for estimating overall yield, printing and machining components
- Achieved a theoretical yield of 3.7 L per day and took first prize in the $12,000 Jacobs Hall sponsored competition

Wind Turbine Design/Build Competition Fall 2015
- Utilized on-campus 3D Printers to test and improve design of turbine blade and tower structure
- Elected Project Manager by team; coordinated deliverables and provided a line of communication to instructor
- Finished 1st for stiffness to mass ratio testing and 5th for power generation

VitaPrint Fall 2016
- Designing prototype of an Arduino-controlled device that uses supplement deficiency data to 'print' personal multivitamin
- Researching powder flow behavior and various control mechanisms to finalize prototype design
- Applying to campus incubators to gain access to a budget, a workspace, and mentors / Assembled team of 3 engineers

Professional Experience

Soundfit San Leandro, California
3D Scanning Startup – Mechanical Engineering Intern Fall 2015 - Spring 2016
- Redesigned, manufactured, and tested through many iterations a key component of the next generation scanner
- Assisting in physically building out the remaining stock of first generation scanners / received training on equipment
- Conducted research on range of commercially available parts in efforts to improve on first generation scanner

University of California, College of Engineering Berkeley, California
Pre-Engineering Program – Student Activities Official Summer 2015 & 2016
- Led a group of 50 incoming Berkeley engineers through an engaging and challenging 10-day curriculum that I helped create with the purpose of preparing low-income, first-generation students for the academic rigor of Cal Engineering
- Responsible for designing and running activities, 2 hrs a day, that addressed the struggles faced by incoming engineers
- Served as a mentor for the students throughout the program and the following year

Additional

Languages: Conversational in French and Hungarian
Technical Interests: Rapid Prototyping, Product Development, Consumer Electronics, Renewables, Manufacturing
Interests: Jazz Trumpet, Entrepreneurship, Soccer, Web Design, SF Giants Fan, Amateur Chef
Awards: National Merit Achievement Scholarship, Richard Bice Jazz Musicianship, National AP Scholar