Blake Hord

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I am a 4th year undergraduate at Stanford University passionate about mechanical design, manufacturing, and engineering complex systems with experience in aerospace on fast-moving, dynamic teams.

Core Skills

SolidWorks | Nx | ANSYS | MATLAB | Python | C++ | Labview | Final Cut Pro X | Arduino |
Mechanical Design | Pressure System Design and Testing | Propulsion Systems Engineering |

EXPERIENCE

SpaceX **Hawthorne, CA**
Propulsion Intern 6/21– 8/21
- Supported design, analysis, and production of Raptor engine thrust chamber assembly
- Used Nx CAD software, ANSYS finite element analysis, and benchmarked designs using test data
- Responsible for full life cycle of several components from design to manufacturing to testing

ABL Space Systems **El Segundo, CA**
Hardware Development Intern 6/20 – 9/20
- Designed flight hardware using Nx CAD software for integration into propulsion and pressure systems
- Validated performance of design with MATLAB and ANSYS modelling

NASA Jet Propulsion Laboratory **Pasadena, CA**
Intern 6/19 – 8/19
- Designed pressurized gas system for high force pneumatic actuator system
- Utilized SolidWorks CAD software to model mechanism layout, movement, and strength

Stanford Propulsion and Space Exploration (SPaSE) Lab – Stanford University **Stanford, CA**
Research Intern *6/18 – 6/19*
- Created portable demonstration hybrid fuel rocket motor for Aeronautics and Astronautics classes
- Worked with electronics controls, propellant plumbing, and propulsion mechanics on tens of hybrid motor test fires

EDUCATION

Stanford University **Stanford, CA**
BS in Aeronautics and Astronautics – 3.9 GPA – Expected Graduation June 2022
MS in Mechanical Engineering – 4.0 GPA – Expected Graduation June 2024

LEADERSHIP & ENGAGEMENT

Stanford Student Space Initiative **Stanford, CA**
Propulsion Team Co-Lead *9/19 – Present*
- Manages school's first liquid propellant rocket engineering team
- Designs, analyzes, manufactures, and tests components for liquid propellant rocket engine

Stanford University Marching Band **Stanford, CA**
Alto Saxophone Section Leader *1/19 – 12/19*

AWARDS & PUBLICATIONS

Mechentel, F. S., **Hord, B**. R., & Cantwell, B. J. (2020). Optically Resolved Fuel Regression of a Clear Polymethylmethacrylate Hybrid Rocket Motor. Journal of Propulsion and Power, 36(5), 763-772.

- Regeneron Science Talent Search – one of 40 National Finalists 2017
- Destination Imagination – Improvisational problem solving global finalist high school team 2017
- Eagle Scout – organized large-scale service project with 400 volunteer hours over five months 2016