

# MATTHEW BRUMMUND

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## EDUCATION

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### BS, Computer Systems Engineering (CSE) 2023 - 2026

- Arizona State University, Ira. A Fulton & Barrett Honors College • Tempe, Az
- Cumulative GPA: 4.0/4.0 • Freshman
- Relevant coursework: OOP and data structures, Engineering team leadership and collaboration, Essentials of programming, Multivariable calculus, In-depth java based programming exercises

### BASIS Oro Valley, High School 2019 - 2023

- GPA: 3.91 • Graduated with honors • Number 21 in the nation (U. S. News and World Report)
- Relevant coursework: AP Calc AB & BC, 14 total AP tests (Average score: 4.2/5)

## HIGHLIGHTED PROJECTS

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### Sun Devil Satellite Lab (SDSL, ASU) 8/2023 - Present

- Assisted the software development team of DORA (Deployable Optical Receiver Aperture) • a 3U cubeSat fielded by the LoCo Lab at ASU • Launches to orbit early 2024
- Developed DORA commands: Log a key payload sensor value (read\_ADC), Return a snapshot of telemetry files (Playback) • Written in Rust
- Scripted a bash linux command to check and restart key DORA processes using crontab

### Read\_ADC (DORA) 10/2023 - 11/2023

- Wrote the read\_ADC function using Rust • Reads a number of current values from a payload sensor, and either returns their average, or writes them to a file, which is then compressed
- Demonstrates an understanding of embedded software development, and satellite systems

### Playback (DORA) 9/2023 - 10/2023

- Developed Playback to read a sample of telemetry files, to reduce file retrieval times from orbit, written in Rust

### Project SPYN (Autonomous Vehicle) 8/2023 - 11/2023

- Led a team of 5 to Design, Build, and Program a maze-solving car • Programmed in MATLAB and executed with a lego mindstorm brick, the vehicle, “ROBB”, can navigate any maze with a closed continuous wall

## WORK EXPERIENCE

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### The Tutoring Center, Senior Tutor 12/2021 - 8/2023

- Tutored Students (K-12) in their schoolwork and studying • Specialties in math, physics, and writing (~840 hours)
- Trained new tutors in Tutoring Center methods • Communicated with parents and oversaw active tutors

### Teaching Assistant (Economics) 8/2022 - 5/2023

- BASIS Oro Valley • Macro and Micro-Economics • Oro Valley, Az
- Led in-class lessons • Created class study materials • Graded student assignments

## RELEVANT SKILLS

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- Languages: Java, Rust, Python, Bash Scripting, MATLAB • Systems: Windows, Linux, Virtual Machines
- Software: Git, VirtualBox, DiskPart, Linux Command Line • IDE's: PyCharm, Visual Studio, Eclipse IDE, MATLAB
- Soft Skills: Team communication, New skill acquisition (Further software/languages), Passion for work