

# Jack Ulbrich-Baker

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## About Me

I am a passionate Engineering student with a drive to develop and work with cutting edge technology. I am particularly interested in space exploration and development of robotics for space, as well as FPGA development and ASIC design.

I am self-driven and have many projects that I have completed that prove this, the most recent would be the FPGA board I am currently developing using a Lattice ECP5 FPGA, DDR3L memory, USB C, JTAG, mezzanine board connectors for additional carrier board development and a lot of flash storage for bitstream configurations.

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## Experience

September 2022 - Current

### **Electrical Engineer** *Monash Nova Rover*

Monash Nova Rover is a student team that competes in the Australian rover challenge (ARC) and the University rover challenge (URC). Last year we came 1<sup>st</sup> in the ARC and 2<sup>nd</sup> in the URC (a worldwide competition). I am a part of the Electrical sub-team which handles all the hardware for power delivery, communications and computing on the rover. In this team I have worked with CAN bus, SPI, I2C and SMD soldering and PCB assembly.

October 2022 - Current

### **Technical Sales Engineer** *Sunlock*

I assist customers with solar array system design and feasibility. I am in charge of developing the new adjustable tilt system that is expected to sell over 100,000 units in a year

November 2021 – November 2022

### **Bartender** *Youngs Wine Rooms*

I was in charge of training new staff, creating new menu items for the cocktail menu and managing and servicing various equipment e.g. Coffee machine, beer taps, soda water machine, etc.

February 2019 – November 2022

### **Sushi Chef** *Sushi Bros*

I was in charge of training new staff and the production of sushi for delivery to primary schools for tuck shops. On a typical day we would product ~500 sushi an hour.

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## Education

**Monash University**  
**BEng (Hons):**  
**Mechatronics engineering**  
**(artificial intelligence)**  
**BCom:**  
**Behavioral Economics**

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## Skills

- Programming – MATLAB, C++, Python, C, VHDL, Verilog and R
- Altium
- Solidworks
- Excel

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## Interests

Music and music gear – I have built and sold my own effects pedals as well as built my own acoustic and electric guitars.

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## Contact

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