

# Elias Kountouris

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## SKILLS

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Languages	C++, C, Python, Javascript
Tools	Git
Software Packages	KiCAD, Solidworks

## EXPERIENCE

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**Waterloo Rocketry** - *Electrical Team* September 2021 - Present

- Designed and created schematics and PCBs for rocket's Control Area Network (CAN)
- Developing mini sensor for CAN to gather acceleration, gyroscopic and barometric data

**Zappos** - *Software Developer (Intern)* June 2020 - September 2020

- Implemented language processing techniques to improve main site search results
- Assisted AI team with sentiment analysis and web scrapping to improve product recommendations

## PROJECTS

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**Keypad PCB and Firmware** - *C++, KiCAD*

- Designed and created schematics and PCBs for custom keypad
- Developed firmware for the keypad using open source QMK library
- Assembled keypad, soldered SMD 0805 / 2012 components

**TakeAways - Chrome Extension** - *Javascript*

- Chrome extension to summarize article into several key points
- Created script to scrape web page for relevant text and select frequently mentioned topics
- Designed simple user interface to improve user experience

**Synbiolic - AI Drug Discovery** - *Python, React*

- Microsoft Image Cup 2020 North American Finalist
- Developed early version of stacked RNN network for small molecule generation
- Created front end of website using React

**Chess Engine** - *Javascript*

- Developed basic chess AI using Alpha-Beta searching to evaluate board positions
- Implemented heuristic techniques to optimize move searching
- Incorporated open source libraries to create user interface

**Polynomial Regression Calculator** - *C++*

- Created helper functions to support matrix math in C++
- Implemented Vandermonde Matrix algorithm for polynomial regression

## EDUCATION

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<b>University of Waterloo</b>	2021 - 2026 (Expected)
<i>Bachelor of Applied Science in Mechatronics Engineering</i>	GPA: 3.97