



# RIDWAN SHARIF

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## SKILLS

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- Experience in Go, C/C++, Python, Scheme/Racket using vim/tmux and Git
- Interested in security/cryptography, backend engineering and systems design

## PROJECTS

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### mqueue

*[git.io/vMKXe](https://git.io/vMKXe)*

- Constructed an in-memory message broker in Go over an HTTP API
- Designed a concurrent, thread-safe publisher/subscriber architecture with multiple topics
- Built an embeddable client library in Go to interface with the API

### prsa

*[git.io/vMKPx](https://git.io/vMKPx)*

- Built the RSA public-key cryptosystem in Python with a command line client
- Implemented ciphertext generation and decryption routines using generated public-private keypair
- Used highly performant exponentiation algorithms, 1000+ unique page views

### fzysearch

*[git.io/vKyww](https://git.io/vKyww)*

- Published a fuzzy-string matching pip module/library in Python for approximated query matches
- Used Levenshtein's edit distance algorithm and average weighted distance for ordering results

### airport

*[git.io/vMKXJ](https://git.io/vMKXJ)*

- Published a command utility for fast directory navigation using previously visited locations
- Used fzysearch to prune through search space and identify closest matching result

## EDUCATION

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### University of Waterloo

2016 – 2021 (*expected*)

*Bachelors of Computer Science, Honours*

- Hack the North (Volunteer), UW Robotics Club, President's Scholarship (95<sup>th</sup> percentile)
- Selected Courses: Algorithm Design, Functional Programming

## ACTIVITIES AND VOLUNTEERING

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### Volunteer in UAE

*Dubai, UAE*

*Bronze Volunteer*

- Volunteered at the Summit Silence, Pink Walkathon, Pink Book Sale, Nike Run, Operation Ozone, Helping Hands, Blood Drives and Ocean Cleanup

### HP Electronics

*Dubai, UAE*

*Sales Representative*

- Sold 450+ laptops and 250+ printers at Gitex (Gulf information technology exhibition)

### St. Mary's Catholic High School

*Dubai, UAE*

*Head-Boy, House Captain, Senior Prefect*

- Elected Head-Boy, House-Captain and Senior Member of solidarity group
- Designed school yearbook and prom invites, organised charity events