

Liam Watson

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EDUCATION

UNIVERSITY OF CAPE TOWN

BSc IN:

COMPUTER SCIENCE AND APPLIED
MATHEMATICS

FIRST YEAR (2019)

Average: 83.5%

COURSEWORK

Introduction to programming and algorithms
Object Oriented programming and Ethics
Modeling and Applied Computing
Dynamics and Mathematical Physics
General Physics
Calculus 1 and 2

SECOND YEAR (2020)

Grade: TBD

COURSEWORK COMPLETED AS OF LAST REVISION

Complexity Analysis, Tree data structures
Hash tables
Priority ques
B⁺-trees
Graph theory including:
Dijkstra, BFS, DFS, Bellman-Ford and
Topological Sorting
Relational database design and manipulation
Unix tools and scripting
Calculus 3, Linear algebra
Ordinary Differential Equations
Numerical Analysis (Mathematical
Computation)
Experience using: Unix, Makefiles and Git

LINKS

Github:// [liamWatson](#)
LinkedIn:// [liamWatson](#)
Personal:// [liamwatson](#)

SKILLS

PROGRAMMING

Confident:

Java • Shell • Python • \LaTeX • MySQL •
Raspberry Pi GPIO manipulation • Unix

Familiar:

MatLab • GNU Octave • html • CSS • Dart •
Flutter • Arduino

EXPERIENCE

UNIVERSITY OF CAPE TOWN | COMPUTER SCIENCE TUTOR

Feb 2020 - Present | Cape Town

- Managed tutorials of approximately 50 students
- Managed tests of approximately 50 students
- Communicated with students on an individual level to aid their learning
- Communicated problems with the course convener and teaching assistant
- Helped students with projects online during Covid-19 Lockdown period
- Finding logical errors in student's code
- Communicating errors with student's and how to fix them

"THE SCHOOL" CAFE | WAITER AND BARISTA

December 2019 | Knysna, Western Cape

- Taking orders and serving food/beverages to tables
- Greeting and seating customers
- Advised on small business payment platforms

PROJECTS

URBAN BALDERDASH

A MODERN DIGITAL VERSION OF THE CLASSIC GAME BALDERDASH

- Scraped all 2.3 million words and 6.5 million definitions from Urban dictionary
- Processed all this data by removing all the words in common dictionaries, removing 'words' which are more than one word and which contain non-letter characters, assigning each word a single most used definition.
- Building mobile UI and logic in dart using Flutter

AVL VS BS TREE VISUALIZER

RENDERS A GRAPHICAL INTERPRETATION OF AN AVL AND BS TREE

- Coding Java classes for the Binary Search Tree and AVL tree
- Coding a rendering class which uses swing to construct the images
- Coding Classes to manage data input from a file

AWARDS

2017	Captain	South African MSSA Dota 2 Team
2014	3 rd /50	Local Bridge Building Contest
2019	Science Faculty	Dean's List
2020	Invite	Golden Key Honour Society
2019	Science Faculty	Faculty Scholarship
2018	Matric	5 Distinctions