

Liam Watson

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EDUCATION

UNIVERSITY OF CAPE TOWN

BSc IN:

COMPUTER SCIENCE AND APPLIED
MATHEMATICS (FINAL YEAR)**CUMULATIVE GPA: 83.5%**

RELEVANT COURSE WORK

FIRST YEAR (2019)

Object Oriented programming and Ethics
Modeling and Applied Computing
Dynamics and Mathematical Physics

SECOND YEAR (2020)

Unix, scripting, Makefiles and Git
Complexity Analysis,
Data structures including: Tree's, Hash
tables, Heaps, etc
Graph theory including:
Dijkstra, BFS, DFS, Bellman-Ford etc
Relational database design and manipulation
Calculus 3, Linear algebra
Ordinary Differential Equations
Numerical Analysis (Mathematical
Computation)
Parallel and Concurrent computing

FINAL YEAR (2020)

Networks in detail
Systems analysis and design
Neural networks for mini thesis
Advanced numerical methods
Complex analysis

LINKS

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

SKILLS

PROGRAMMING

Confident:

Java • Shell • Python • \LaTeX • MySQL • Unix •
Java Script • Type Script • ReactJS • html • CSS
• Git • GitHub

Familiar:

• MatLab • GNU Octave • Dart • Flutter •
Arduino • Raspberry Pi GPIO • API interaction

EXPERIENCE

AWS | SOFTWARE DEVELOPMENT ENGINEER INTERN

Jan 2021 - Mar 2021 | Cape Town

- Communicated with coworkers from UX to data science to complete work
- Worked with company API's and SDK's
- Engaged in agile process with daily stand up meetings

UNIVERSITY OF CAPE TOWN | COMPUTER SCIENCE TUTOR

Feb 2020 - Present | Cape Town

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

PROJECTS

JAVA CHAT APP

CHAT APP THAT SUPPORTS USER LOGIN AND GROUP CHATS

- Parallel programming for networking threads and GUI
- Messages are transferred using UDP and reliability is ensured by application layer protocol designed by my team
- Effective use of Git and GitHub for version control when working in a team of three

ALGORITHMS VISUALIZER

RENDERS A GRAPHICAL INTERPRETATION OF A VARIETY OF
COMPUTER SCIENCE AND MATHEMATICAL CONCEPTS

- Core HTML, CSS and Java Script skills
- Demonstration of optimization and rendering understanding
- A clear and thorough grasp of advanced and simple concepts was needed

AVL VS BS TREE VISUALIZER

RENDERS A GRAPHICAL INTERPRETATION OF AN AVL AND BS TREE

- Required swing knowledge to render trees
- Required knowledge of data structures

AWARDS

2019	Science Faculty	Dean's List
2020	Science Faculty	Faculty Scholarship
2021	Science Faculty	Faculty Scholarship
2020	Invite	Golden Key Honour Society
2018	Matric	5 Distinctions
2017	Captain	South African MSSA DotA 2 Team