# **Lynolan Moodley**

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#### **PROFILE**

I am an ambitious, research-oriented honours student keen on undertaking projects to contribute to the computer science field. Tutoring peers at school and volunteering for charities have provided me with valuable lessons in social interaction and teamwork. Several personal projects have been undertaken to further my knowledge about game development, graphics, visualisation and machine learning.

#### **EDUCATION**

## **Bachelor of Science (Honours), Computer Science**

02/2020 - 11/2020

University of Cape Town, Cape Town, South Africa

- Funded by the National Research Foundation
- Member of the UCT Developer Society

#### **Bachelor of Science, Computer Science and Computer Games Development**

03/2017 - 11/2019

University of Cape Town, Cape Town, South Africa

- Distinction in Computer Science
- Dean's Merit List
- Member of the Google Developer Student Club

#### **National Senior Certificate**

2016

Seatides Combined School, Durban, South Africa

- Award of Merit
- Placed 1<sup>st</sup> in the Tongaat EMS Society Accounting Finals
- Placed 1st in the FET General Knowledge Quiz Committee Finals

#### **LEADERSHIP**

## **University of Cape Town Society for Physics Students Committee Member**

2017

• I organised team-building events for the Physics Society.

#### **Seatides Combined School Prefect**

2016

• I was a role model figure to promote good academic practices among students.

### **Seatides Combined School General Knowledge Committee President**

2015

• It was my responsibility to lead the General Knowledge Club. In addition to sourcing discussion material and arranging our meetings and practice sessions, I promoted collaboration and comradery within the team.

#### **EXPERIENCE**

## **Software Engineering Intern**

01/2021 - present

Aruba Networks, Cape Town, South Africa

• An internship programme focusing on backend development.

## **Software Engineering Mentee**

06/2020 - 09/2020

**Facebook** 

• A mentorship programme that provided invaluable insight from the CS industry.

**Student Assistant** 04/2017 – 05/2017

University of Cape Town Career Service, Cape Town, South Africa

• Temporary work during a few career expositions.

#### **PROJECTS**

#### **Clustering-Based Tree Segmentation in Aerial Images of Orchards**

2020

- A computer vision project about identifying trees in heightmaps of orchards.
- The aim was to investigate the usage of watershed and machine learning techniques, such as Simple Linear Iterative Clustering (SLIC) to identify trees in a variety of heightmaps, with different terrain types, using the OpenCV library with C++.
- The system developed worked well in gentle gradient terrain.
- Available on UCT Computer Science Publications:
  <a href="https://projects.cs.uct.ac.za/honsproj/cgi-bin/view/2020/bowden\_emeruem\_moodley.zip/">https://projects.cs.uct.ac.za/honsproj/cgi-bin/view/2020/bowden\_emeruem\_moodley.zip/</a> OR
  <a href="https://projects.cs.uct.ac.za/honsproj/cgi-bin/view/2020/bowden\_emeruem\_moodley.zip/">https://projects.cs.uct.ac.za/honsproj/cgi-bin/view/2020/bowden\_emeruem\_moodley.zip/</a> OR

Beameo 2020

- A 2D, single player, mobile, arcade style game developed using Unity.
- I was responsible for project management: scheduling our agile cycles and allocating work. I was also the technical lead and was responsible for designing and developing not only the mechanics of the game, but also special effects.
- Thanks to my efficient planning and work allocation strategy, my team was able to complete this project 2 weeks ahead of schedule.
- Available on Google Play: <a href="https://play.google.com/store/apps/details?id=com.LameGame.Beameo">https://play.google.com/store/apps/details?id=com.LameGame.Beameo</a>

**Hue** 2019

- A 3D, multiplayer, multilevel game developed, using Unity and Blender, for a group project.
- I was responsible for project management: allocating work and controlling the scope of the project, game mechanics, AI (to control non-playable characters), level development and character development.
- As I had stressed the importance of cost vs. impact, when considering game features, I saved the team a lot of time as we developed the game. We were able to focus on implementing a well-designed, feature-rich experience, which earned us the highest grade in the class.
- Available on UCT Computer Science Publications:
  <a href="http://projects.cs.uct.ac.za/gamesproj/cgi-bin/view/2019/main\_moodley\_taschner.zip/">http://projects.cs.uct.ac.za/gamesproj/cgi-bin/view/2019/main\_moodley\_taschner.zip/</a>

#### AREAS OF INTEREST

• AI; game development; graphics; HCI; ML; software engineering; visualisation; VR/AR

#### COMMUNICATION

- I had an incredible opportunity to debate many topics in the developer clubs which certainly broadened my horizons and allowed me to share knowledge with my peers. Being able to empathise with others about the struggles of performing research in a resource-constrained environment helped to motivate me to keep pushing boundaries.
- I have developed public speaking skills through various class presentations, school event presentations, presenting at the school's Debs Ball (2016) and the Debate Club (2013-2014).
- I spread awareness of climate change as a Climate Justice Ambassador for Plant-for-the-Planet.