

VEROSHA PILLAY

Post – Graduate Student

6 Short Street, Marburg, Port Shepstone, 4240 | 082 743 2074

verosha0807@gmail.com | www.linkedin.com/in/verosha-pillay-49b447115

EDUCATION

Masters by Research in Computer Science
University of KwaZulu-Natal
2019 - Present

Research areas include:

- Computer Vision
- Machine Learning
- Artificial Intelligence

Bachelor of Science Honours in Computer Science
University of KwaZulu-Natal
2018 - 2018

Relevant modules completed include:

- Image Processing
- Machine Learning
- Ontology
- Optimization & Modelling
- Cryptography

Bachelor of Science in Computer Science and Information Technology -**Dual Major**
University of KwaZulu-Natal
2014 - 2017

Relevant Modules completed include:

- Systems Analysis & Design
- Applied Systems Implementation
- Data Structures
- Networking & Database Management
- Object-Orientated Programming

Port Shepstone Secondary High School
2009 - 2013

WORK EXPERIENCE

Module Demonstrator

University of KwaZulu-Natal

Feb 2019 - May 2019 , Feb 2018 - May 2018 and July 2018 - Nov 2018

- Learned how to be open and empathic towards students when helping them
- Learned how to effectively teach, assist and manage relatively large groups of students

Vacation work – Intern

ThoroughTec Simulation

Dec 2018 - Jan 2019

- Part of the Computer Based Training team.
- Helped with an animated comic project which involved base sketching on paper and assisted with story ideas.
- Provided assistance on a mini-project which entailed providing a small application to showcase Angular and Firebase. I was responsible for error checking.
- Skills gained and learned include: Experience in an agile team, adaptability to switch between tasks, ability to communicate effectively and collaborate comfortably with other interns and company employees

Vacation work – Sales Assistant

Musica

Nov 2014 – Jan 2015

- Responsibilities included: Advise customers, arrange ordering , delivery and organization of stock
- Key skills acquired include: Flexibility of different tasks, ability to be friendly and polite, even when tired, or under pressure , effectively work well with fellow colleagues and the ability to manage time during busy/peak periods

TECHNICAL SKILLS

- Java
- C++
- Crystal Reports
- Photoshop
- HTML and CSS
- Project Management
- Python
- Visual Basic
- SQL
- Git
- Bootstrap
- UiPath - RPA

SOFT SKILLS

- Communication
- Self-management
- Problem-solving
- Self-motivation
- Ability to work under pressure
- Adaptability
- Collaboration
- Teamwork
- Creativity

INTERESTS AND HOBBIES

- Robotic Process Automation (RPA)
- Unity – Image synthesis and game design and development
- Keen interest in Virtual Reality (VR) and Augmented Reality (AR)
- I enjoy playing volleyball and cricket
- Sketching
- Chess
- Science and Technology Conferences

PROJECTS

1. School Management Information System and supporting Website

- Final year project during my undergraduate studies.
- Created a system for a high school for the purpose of transferring the then used paper-based system.
- Technologies and languages used include Visual Basic.net, SQL , Asp.Net, JavaScript and CSS
- Challenges include creating a user-friendly experience and incorporation of part-time study data logic.

2. Passive Reconnaissance Report

- Group project which entailed gathering information to detect possible vulnerabilities used to attack the selected company.
- Tools employed include FOCA, NMap, Maltego, DNS Dumpster, The Harvester, WHOIS, Recon-ng and Profiler.
- Learned how to analyse and investigate vulnerabilities, threats, and implement reconnaissance tools.

3. Student Profile Platform

- Collaborative side-project – which is in progress
- Website displaying and tracking all projects and work completed/in progress from the commencement of a student's degree. The platform is now moving in the direction of a mobile application.
- The overall objective is to allow students without a technical background to upload and manage their projects.
- Providing students with a platform to showcase an online CV allowing companies to physical see how projects were accomplished.

4. Other Projects (including above) can be found on : <https://github.com/Vee995>

RESEARCH PROJECTS

Masters Research

Skin Cancer Detection of Various Skin Tones with the use of Deep Learning
Deep Learning and Computer Vision

My master's research is an extension of my honours work. There is a major gap in research for skin cancer detection on various skin tones, this is primarily due to the lack of data available to train deep learning models. To overcome this challenge, I plan on researching possible ways to synthesis image data. Thus, the aim of this research is to detect skin cancer at its preliminary stages for all skin tones by incorporating deep learning to further inspect the differences that lie within each skin tone.

Honours Research

Skin Cancer Detection using Macroscopic Images
Computer Vision and Machine Learning

The aim of this research work was to investigate methods that can be utilized for the precise detection of skin cancer at its early stages. Furthermore, a proposed detection and software model were completed with the use of various machine learning and image processing techniques. This research makes use of digital images (macroscopic) as an alternative source for the detection of a suspected mole to allow the general public to use their mobile applications for the pre-screening of skin cancer. Moreover, I tested a widely used technique employed by medical experts. The objective was to determine if the technique is viable when analysing digital images or which of the features in this technique would be applicable or advantageous on this particular image type.

AWARDS

Dec 2018 – University of KwaZulu-Natal

- Graduated Summa Cum Laude

Mar 2019 – IEEE

- Research accepted by IEEE for publication
<https://ieeexplore.ieee.org/abstract/document/8703611>

Mar 2019 – University of KwaZulu-Natal

- Best Research award
- In the school of Computer Science at Honours level

VOLUNTEER EXPERIENCE

Indaba X - Machine Learning Conference

Organising Volunteer
April 2019

- Assisted with Registration
- Packaging of giveaway bags

S.P.C.A

Part Time Volunteer
Dec 2017

- Fundraiser : Gift wrapping done at a Shopping Centre during the Christmas period
- Proceedings went to the health care of animals at the SPCA

Various Primary And High Schools In Durban

Part Time Volunteer
December 2016

- Decorated and created Christmas cards for disabled children.

Emseni Children's Home

Part Time Volunteer
June 2011

- Provided lunch for the children and staff
- Helped the children with their homework
- Played games with the younger kids aged between 3-7

S.P.C.A

Part Time Volunteer
Dec 2011

- Gift wrapping done at a Shopping Centre
- Proceedings went to the health care of animals at the SPCA