KennedyChengeta..

Machine Learning/Computer Vision/ Workflow/BPM Engineer

Identity

SA ID xxxxxxxxxxxx

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Carlsward
Midrand, Noord-
wyk,Johannesburg

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kennedy.chengeta.skype

Mail

kennedy.chengeta@
gmail.com

Web & Git

kaributechs.com
bitbucket.org/chengeke
github.com/chengeke
gitlab.com/u/chengeke

Personal Skills

Initiative
Curiosity
Team Player
Organize
Problem Solving
Manage

Education Completed

2016 - 2020   **Phd in Computer Science-Computer Vision Algorithms**   University of KwaZulu Natal, School of Mathematics, Statistics and Computer Science, SA

Research Area:: Computer Vision: Human Expression and Characterization using facial images. Machine Learning Algorithms in Computer Vision. Feature Extraction Algorithms in Computer Vision. Facial expression behaviour analysis and the analysis, recognition and detection of such micro expressions in 2D/3D/4D. Analysis of facial behaviour in static images and long term videos including ability to use facial behaviour analysis for emotion derivation. Deep Learning and Local Binary Pattern variant algorithms. Local Binary Patterns and Local Directional Patterns. Deep Learning with Tensorflow and Keras including optimization with L2 Regularization, augumentation and dropout approaches. Classification with Ensemble Voting classification methods composing of support vector machines, k-nearest neighbors, multi-layer perceptron, random forest and stacking classifiers.

2013 - 2015   **Msc in Advanced Software Engineering, cum laude**   Leicester University , UK

Domain Specific Languages, Advanced Web Technologies(Cloud,..Net),Generative Development,(AOP,Feature Modelling), System Re-Engineering(Dynamic,Static analysis), Service- Oriented Architectures, (XML,BPEL), Semantic Web,(Ontology Programming) Research Area:: Probability Latent Semantic Analysis and Internet Content Filter(Recommender Algorithms). Collaborative filtering of user preferences. Singular Value Decomposition (SVD), Model fitting,Expectation Maximization. Information filtering algorithms. Dr Alex Kutz and Li Hong

2004 - 2007   **Msc in Finance and Investments,2.1**   NUST Zimbabwe

Advanced corporate financial strategy, qualitative and quantitative analysis of investments, behavioural finance, global financial markets, financial statement analysis and planning, public finance and debt management, international multinational business finance and trade, financial engineering, advanced assed pricing, risk management, financial modelling and trading rules, innovations in finance (such as structured finance), alternative investments, corporate ethics and governance, quantitative and qualitative research on current financial problems or opportunities.
Research: Investment Linked products in Life Insurance, a drift from conventional products to Unit Linked life products)..Unit linked policies and risk and claims payout. Death and disability claims,reinsurance and commission payout to agents , actuarial valuations of such products.Medical Underwriting and Death and disability claim calculations on unit linked policies

2011 - 2012   **Masters in Information Technology Management (partial), courses only completed**   University of Pretoria , South Africa

Domain Specific Languages, Advanced Web Technologies(Cloud,..Net),Generative Development,(Organisational behaviour and management, Computer science in perspective, Information in perspective,Life-cycle and maturity models for IT,Digital economy,ICT project management, Corporate IT systems ,IT financial management,Strategic ICT management , ICT infrastructure management

1998 - 2001   **BBS and Computing Science,2.1**   University of Zimbabwe

Computer Science and Business Courses: Business Administration,Financial Accounting for Business,Fundamental Mathematical Structures , Business Administration, ,Discrete Mathematics, Data Structures and Algorithms, Logic Design and Switching Circuits ,Economics,Software Engineering, Microcontrollers, Microprocessors and Interfacing ,Advanced Programming , Database Concepts,Automata, Languages and Computation , Management , Marketing , Corporate Finance , Theory of Computation,Computer Organization Architecture,Design and Analysis of Algorithms , Operating Systems, Strategic Management ,Advanced Corporate Finance,Treasury Management,Management of Financial Institutions,International Finance,Programming Languages,
Computer Science Dissertation: Medical Aid doctors portal for claims management using IBM Lotus Domino and Websphere Application java server. Stock Trading Application mobile application using javascript, java and web technologies.

2000 - 2001   **Accounting Chartered Institute of Secretaries Part A**   CIS

Economics,Marketing and Business Communication Subjects passed

1996 - 1997   **Cambridge A Level**   Goromonzi High

Maths, Further Mathematics, Physics and Chemistry,2 distinctions and 2Bs

1992 - 1995   **Munyati and Nkululeko High Schools**   Cambridge O Level

Maths, Science, Physics,Chemistry,Geography,Accounts,Geography, Agriculture,Shona,7 distinctions

Current Research

2020 - 2021   **Post Doctorate Researcher: Image Segmentation**   KaribuTechs AI Research

Liver Tumor Segmentation Using Machine Learning Techniques.. In this project, we are developing automatic segmentation algorithms based on machine learning to segment liver lesions in contrast-enhanced abdominal CT scans. There is a bench-mark dataset which available from the MICCAI. And the main objective of this work is to detect the liver cancer accurately using automated methods. Various techniques such as a multilayer CNN, or a CNN-RNN model will be tested to improve the classification accuracies against the stat-of-the-art.Investigation The methodology includes Deep learning techniques such as EfficientNet are proposed to be implemented and enhanced towards accurate liver tumor segmentation. **Other Research Papers under preparation/submitted in 2020:**

1. *Graph Neural Networks algorithms in computer vision. (IEEE,ICTAS) with Elizabeth Mabika (NUST)*
2. *Optimisation of deep learning relu based variant activation functions using mushroom image data (IEEE,ICTAS) with E. Mabika*
3. *Hyperparameter tuning using deep learning , keras tuner and tensorflow with Elizabeth Mabika*
4. *Quantum Machine Learning application in computer vision with Elizabeth Mabika*
5. *Image processing with Salesforce Einstein AI Engine with Elizabeth Mabika*
6. *Tensorflow.js application for image processing on mobile platforms with android*
7. *Generate image to image translation with GANs with photo-realistic images to sketches*
8. *Low to High Super-Resolution Convolutional Neural Network for Image Restoration*
9. *Image Detection and using Canny algorithms, supervising MSc Research student*

2020 - 2021   **Moderator, ICT and Society Conference (ICTAS 2021), IEEE**   DUT, 2021

Research Area: Mathematical Logic, Algebra, Geometry, Mathematical Analysis, Mathematical Physics, Statistics, Numerical Analysis, Optimizations, Foundations of Mathematics, theory of formal languages, discrete methods in Mathematics, the applications of data analysis, bioinformatics and information systems for understanding structures in big data systems and networks, the techniques for modeling, analyzing and simulating complex dynamic systems, discrete event systems and nonlinear control systems.

2020 - 2021   **Moderator, Conference on Artificial Intelligence, Big Data, Computing and Data Communication Systems, IEEE**   UKZN, icABCD, 2021

Research Area: Mathematical Logic, Algebra, Geometry, Mathematical Analysis, Mathematical Physics, Statistics, Numerical Analysis, Optimizations, Foundations of Mathematics, theory of formal languages, discrete methods in Mathematics, the applications of data analysis, bioinformatics and information systems for understanding structures in big data systems and networks, the techniques for modeling, analyzing and simulating complex dynamic systems, discrete event systems and nonlinear control systems.

2020 - 2020   **Salesforce Einstein AI Module /Workflow**   Salesforce Cloud
Salesforce, Salesforce Salescloud, Commerce Cloud, Apex, Lightning Flow, Process Builder

2020 - 2020   **API Connect with IBM**   IBM

2020 - 2020   **Natural Language Processing and Voice emotion detection**   Amazon AWS
Hidden Markov Models and Amazon AI

2020 - 2020   **Azure and AWS Cloud Computing**   Azure and Amazon AWS

Current and Planned Education

2021-2021   **Msc Statistics and Applied Financial Mathematics**   Sheffield University , UK, September 2021 Distance Learning

Research Area: Mathematical Logic, Algebra, Geometry, Mathematical Analysis, Mathematical Physics, Statistics, Numerical Analysis, Optimizations, Foundations of Mathematics, theory of formal languages, discrete methods in Mathematics, the applications of data analysis, bioinformatics and information systems for understanding structures in big data systems and networks, the techniques for modeling, analyzing and simulating complex dynamic systems, discrete event systems and nonlinear control systems. Research Area::"Heuristics ,machine learning and computational algorithmic analysis on empirical finance and financial problems.",application of artificial intelligence and machine learning algorithms on the financial sector on areas like algorithmic trading(High-frequency finance and algorithmic trading), portfolio optimisation ,Applications of quantum computation to finance and using advanced computational algorithms to engage in option and share trading .Application of computational techniques in modelling investment risks and Monte Carlo Methods using computational Financial modelling and financial engineering driven by Computational techniques , Natural Computing techniques like Swarm intelligence on how to apply on the financial arena. Other techniques like Support Vector Machines can be applied in the financial world as well as algorithmic analysis of various derivative instruments. Applications of time series in data mining on financial instruments and data would also be an angle of research that would I would focus on. High frequency and algorithmic trading and algorithmic portfolio management 2. Applications of quantum computation to finance portfolio optimisation, 3. Machine learning and computational financial intelligence 4. Parallel computing and numerical algorithms as applied to finance. 5. Agent-based finance 6. Algorithmic analysis of derivatives valuation 7. Behavioral finance and investor heuristics and algorithms 8. Statistical arbitrage strategiese

2021-2021   **Master of Engineering in Telecommunications, UCT** University Of Cape Town, Cape Town, South Africa

Research Area: Advanced Engineering Mathematics , Information Theory and Error-Control Coding , Statistical Signal Theory , Digital Communication Systems , Advanced Topics in Communication and Networks ,Microwave Components and Antennas , Optical Communication Systems , Broadband Communication Networks , Wireless Data Network Convergence , Software Defined Radio, Machine Learning for Next Generation 5G/6G Network from digital coding, equalisation and impairment mitigation, through to monitoring, fault prediction and identification, and signal restoration, traffic pattern prediction and resource planning.)

2021 - 2022   **Master of Engineering in Connected and Autonomous Vehicles** Institute of Technology Sligo, Republic of Ireland, 2021

Research Area: Applied Linear Algebra, ADAS and Autonomous System Architecture, Environment Detection ,Multiple View Geometry in Computer Vision,Automotive System Safety & Cybersecurity ,Applied Statistics and Probability, Connected Vehicles,Machine Learning, Vehicle Dynamics and Control ,Modelling, Simulation and Test Methods for Advanced Driver Assistance Systems, Research Methods)

2021 - 2022   **Course: Algorithms and Systems for Autonomous Vehicles , Umeå University, Sweden**   UMEA City, Sweden, 2021

Autonomous driving (AD); key concepts of machine learning (ML), especially reinforcement learning (RL), and deep reinforcement learning (DRL);hands-on exercises with one of the popular open-source ML frameworks such as Tensorflow or PyTorch; Training, deployment and validation ML-based autonomous driving algorithmsin a simulation environment.)

2020 - 2020   **Salesforce Einstein AI Module /Workflow**   Salesforce Cloud
Salesforce, Salesforce Salescloud, Commerce Cloud, Apex, Lightning Flow, Process Builder

2020 - 2020   **API Connect with IBM**   IBM

2020 - 2020   **Natural Language Processing and Voice emotion detection**   Amazon AWS
Hidden Markov Models and Amazon AI

2020 - 2020   **Azure and AWS Cloud Computing**   Azure and Amazon AWS

Experience

11/20 - now   **BAW/BPM Business Cloud Automation Workflow (Consultancy) and Full Stack SME**   Standard Bank South Africa

• Manage 40 BPM BAW Developers developing IBM BAW/DBA Process Design, Case Manager and ODM Business rules. JIRA, Confluence DevOps Automation using PYthon, Jenkins, Bamboo, BitBucket and BPEL Development.
• Advanced BPM and Workflow with IBM BPM , RPA and Webmethods
Web Developmesing using Flutter and Android patterns
Development using React JS, ODM Rules Engine, Angular JS, Camunda Workflow, SpringBoot and Activity Workflow as well as Mobile Development and Linux and AWS cloud development
• IBM API Manager Development Guidelines with IBM API Development Tool
• AWS API and Azure API Development and consumption in IBM BAW 19.0.0.3
• Migration to Amazon Cloud Services, AWS and Running Business Automation Workflow 19 on Azure and AWS using OpenShift,Process Mining on BAW 19,ODM Rules Engine Implementation
• Development with REST API and also implementing SimpleAPI as well
• Process Automation-BPM and RPA using software robot to interact with an existing
• Designing Service Component Architecture (SCA) modules and libraries in IBM Integration Designer)
• XML,XSLT and ESB services through Datapower Enterprise Services. • XML,BPMN and BPEL Development using BPM Process Designer/Intergration Designer.
• Internet Banking for Business Payments system-Approval based online business banking including preapprovals of transactions by all directors and online registration of business directors using BPM 8.5.6,Datapower, AngularJS and Java on JBOSS as the fronent as well as ClickView Reporting tools.
• Internet Banking for Business Registration system-Multi Directors approvals.MongoDB, AngularJS, Sparks Toolkit for BPM on 8.5.7 and also Filenet ECM as well as Datapower and JBOSS Application server .
• SalesForce and RPA Development using UIPath and Blue Prism, Machine Learning and Computer Vision
• Java Development and Springboot framework

05/10 - now   **KaribuTechs AI Research Architect (Part Time)**   KaribuTechs,South Africa

Advanced BPM and Workflow with BAW 19.0.0.3, BPM 8.6, IBM BPM , RPA and Webmethods
Team of 12 Consultants and Developers in South Africa
Mobile Android ,Node.JS, Angular, Xcode and Internet Of Things Development
Linux and AWS cloud support and IBM API Development,Cloud AWS Devlopment using OpenShift, Python Machine Learning Algorithms,Rules Development using IBM ODM and API Develpment with Mulesoft and IBM API Connect.
Tensorflow Development and MuleSoft Development
SalesForce Lightning Flow Process Development, Java Development

11/19 - 11/20   **Acting Engineering Lead of BAW/BPM Business Cloud Automation Workflow (Consultancy)**   Standard Bank South Africa

• Manage 40 BPM BAW Developers developing IBM BAW/DBA Process Design, Case Manager and ODM Business rules
• JIRA, Confluence DevOps Automation using PYthon, Jenkins, Bamboo, BitBucket and BPEL Development.
• IBM API Manager Development Guidelines with IBM API Development Tool
• Process Mining on BAW 19

2012 - 11/19   **Engineering Tech Lead of BAW/BPM Business Automation Workflow**
Standard Bank South Africa

• IBM BPM 8.6; 8.5.7; 8.5.6; 8.5.5; 8.0.1 development and design.Straight Through, BPMN and BPEL as well Case Management Framework + CMIS Document Upload to Filenet
• BPM 8.5.6 upgrade project from BPM 8.0.1 server • BPM Process Design and Webservice Integration using IBM BPM 8, BPM 8.5 and BPM 8.5.6 Bus(Message Broker) and Datapower.
• DevOps and Continous Development using Chef automation, Bamboo, Docker,Jira and Confluence tools.
• Selenium and Jenkins as well as Bamboo and also IBM Test Asset for automated testing as well as code quality enhancements,cucumber and Maven.
• Value Added Financing business process using BPM 8.5.7, SAP CRM,Datapower, IBM Filenet ECM and also SAP BW for reporting as well as Coaches and also .Net Frontend solution.
• Development with REST API and also implementing SimpleAPI as well • Process Automation-BPM and RPA using software robot to interact with an existing
• Designing Service Component Architecture (SCA) modules and libraries (authored in IBM Integration Designer) • XML,XSLT and ESB services through Datapower Enterprise Services • XML,BPMN and BPEL Development using BPM Process Designer and Intergration Designer.
• Internet Banking for Business Payments system-Approval based online business banking including preapprovals of transactions by all directors and online registration of business directors using BPM 8.5.6,Datapower, AngularJS and Java on JBOSS as the fronent as well as ClickView Reporting tools. • Internet Banking for Business Registration system-Multi Directors approvals.MongoDB, AngularJS, Sparks Toolkit for BPM on 8.5.7 and also Filenet ECM as well as Datapower and JBOSS Application server for the online UI.• Process applications of smart automation Anti-Money Laun- dering (AML)• Investment Banking and Global Markets Document Management for Standardbank using Filenet ECM and IBM BPM8 and Datapower. • BR6 Account Origination Process for Standard Bank BPM 8.5 Process Optimisation for SBSA. • Team Service and AutoMated User Mantanance for Home Loans Process. Broker ,ECM Filenet and ZK Java FrontEnd SBSA GOSS and OSS Filenet and BPM Based BPM Processes.
• DSML-XML Based Access of LDAP Data through Web Services,Directory Services Markup Lungauge. All calls to LDAP are made through Datapower.

Other Work Experience

05/10 - 05/12 **IBM Websphere and MQ Consultant**   Ubank,South Africa

WebSphere and MQ troubleshooting and setups on Ubank environments Java Development-We are proud to have developed latest J2EE Systems using a whole host of solutions tools like IBM Websphere Lotus Notes++ IBM Websphere Application Server Spring and Hibernate
WebSphere MQ and JMS Solutions Webservices Workflow and transformations using Websphere Process Server and Portal Server and Message Broker Designing new environments and solutions and Debugging Java problems on the Flexicube
System,Flexicube Banking
Java Issues,Flexicube System running on WAS6.1. Glassfish,Solaris ,Ubuntu and ServiceMixFlexicube Host Server Support and Setup. Flexicube MQ Support(MQ7 and MQ6.1) Flexicube
Branch Server Setup and Support(MQ Client) Webpshere Application Servers 6.1 admin and development on AIX 6.1 LPARs. Websphere MQ applications for banking transactions . Payment Gateway Misys Message Manager Deployments Load Balancing,SAN and IBM XIV StorageS

08/07 - 10/03 **BPM Intergration Consultant**   Vodacom South Africa

Process Server Development and Portal Development using IBM BPM Portal,Liferay as well as Oracle Fusion. Developing SOA and Portal Solutions for Liferay and Websphere c) Developing business processes applications using Process Server for Vodacom using the ESB Design Pattern.Developing using Websphere Business Modeller,Websphere Integration Developer and Process Server and managing human tasks and business rules d) Using Rational Application Developer 7.0 and 7.5 e) Developing using Oracle Fusion BPEL processes f) Migrating WPS processes to Oracle Fusion. g) Developing and fixing bugs for Vodacom Talking points,LDAP System,Credit Notes Workflow system,Refunds System h) Supporting mobile applications for Vodacom business units. i) Developing PortalApplications j) Using Rational ClearCase, ClearQuest , Rational Software Architect k) Developing Java Portlets l) Using Informix,Informix and DB2 m) Using Rational Application Developer 7.0 and 7.5 n) Developing and fixing bugs for Vodacom Talking points,LDAP System,Credit Notes Workflow system,Refunds System o) Develop with Lotus Forms p) Developing Implementation sheets for systems to be deployed q) Analysing and maintenance of existing systems through logs on AIX. r) Configuration changes on the AIX LPARs specific to the developed application

08/05 - 04/08 **Biomedical Systems Consultant**   UZ Medical School in Africa, OASIS Project ,ZW

Development of Medical Systemss using open source technologies like HL7 and other medical frameworks based on java and other opensource tools.

08/05 - 04/08 **Java Architect Consultant**   ZB Life Assurance Africa,ZW

Designed eLife a Life Insurance System as well as Annuity Administration System including all units, Unit Trusts,Accounting,New Business,Claims,Reinsurance,Stop Orders,Debit Orders, Product Definitions,Actuarial Reports etc. Used Lotus Domino,Websphere,pSeries,AIX Developing Lotus Notes, J2EE Java and Web Based Systems -leading a team developing Inhouse systems -identifying systems that need to be developed using Websphere , Java, Lotus Domino/ Notes , Suse Linux Was the brains behinds the replacement of the HBOS based Life Administration System, CPAS which was purchased at over a million pounds to purchase and running at licence fees at hundred thousand pounds annually.

The eLife project is an inhouse system with no licence fees running on WAS6.1,pSeries and Suse Linux environment.It was designed over 3 years on an J2EE,EJB ,Servlet and JSP technologies as well as running on DB2 as the datastore.I recruited over 11 programmers for the duration of the project and trained them on J2EE concepts as well as Life Insurance .IT covered New Business Modules,Underwriting,Reinsurance,Claims ,Premiums Processing,Units Management and Annuity Processing and Premium Processing modules as well.I also overseed the migration of the data from HBOS CPAS System to eLife over 3 months period as well. Project Architect Designing, Analysis and Coding of the system IT Steering Committee Secretary for the Project Using J2EE programming model, Rational, Websphere and Domino Presenting to the Company Board of Directors weekly progress Designing the Use-Cases diagrams Designing the UML diagrams for the system Leading a team of 9 software developers Rational Application Developer 6.0 and 7.0 ,CVS Java, Javascript, LDAP, ant, apache, Project 1- eLife (Individual Life Project)-5 million pounds system

08/04 - 01/05 **Lotus Consultant**   CABS Southern Africa

Desinged HR Appraisal Workflow for CABS Employees and Bonus Payments. -Developing Notes Based Systems using Domino 7(Lotus Script,Formula Language and Java for Domino) -Support of other systems eg Money Market-Java Based, Zetts1 -Act as backup of LAN and Server Systems Engineer Projects Done(All Lotus Domino/Notes and Java Based Systems) Cabs Mileage, Car Booking and Fleet System Mortgage Processes Database/ Leave Dbase HR Employees/HR Appraisals system-Performance Appraisal and Bonus Payments Contact Centre System/Financial Clearing Beruae

Other Work Experience

04/08 - 08/08 **Health Informatics Consultant**   OASIS Southern Africa
Health Informatics Development, HL7 and other frameworks

01/04 - 09/04 **GIO Consultant**   Unilever Southern Africa
Network Support, Lotus Notes. Network Systems Engineering Supporting Networks, LAN, WAN, Outlook,
Windows 2000 Servers and Telecoms Infrastructure. -Support of local software like IRIS-Notes Based Soft-
ware -PC and Printer Refresh, March 2004 -Redesigning a new LAN for Unilever Harare, March to July 2004
-Lotus Notes Development -Soap Production Systems Development -Margarine Manufacturing System,

08/01 - 01/04 **GIS Consultant**   ExxonMobil Southern Africa
Network Support, Lotus Notes,Accpac. ERP and Network Systems Analyst and Designer Accpac Account-
ing Systems Support specialist.Supported the following modules Order Entry,Inventory Receipts,General
Ledger,Cash Book Accounts Receivables,Accounts Payable and Inventory Control Supporting Email System-
Lotus Notes and LAN, WAN using tools like V-Sat, optic fibre and radio link,VPN and PC Support , -Accpac
Systems Support of Major Oil Depots in Zimbabwe -PABX and telephone Management,VOIP Confuration
-Payroll System (Accpac Support), -Supporting Exxon South Africa on Accpac issues -Lotus Notes Mail Sys-
tems Support and Upgrade version 4.5 to version 5 -VAT changeover Accpac System. -Designing Lotus and
Access systems -Lotus Notes Development

02/00 - 07/01 **Java and Lotus Domino Consultant**   eSolutions Southern Africa

Java Development, Lotus Notes,Websphere, • Developing Lotus Based Solutions and that designed
the Cimas Website • a)Used Websphere,JSPs ,Lotus,,Java,Javascript and Java and LotusScript in Design of
systems • Visual Age for Java etc • b)Designed a J2EE Stock broking site using WAP,WML,XML,WebSphere
and Java • c)Designed the Web Frontend on Lotus Domino and the following modules • Health Service
Providers • Clients portal/ Information portal

08/99 - 01/00 **Student Scholarship Consultant**   Price Water House Zimbabwe
Novell, Lotus Notes and Hardware Support

03/98- 07/98 **Science and Mathematics Teacher**   Batanai High School,Redcliff, Zimbabwe
Science and Mathematics

03/10- Now   **Website Development**   Karibu Techs, karibuTechs.com

Machine Learning and Deep Learning Algorithms,Quantum Computing, Graph Neural NEtworks, LSTM and
Siamese Networks. Reinforcement Learning, GAN, Object Detection and Feature Extraction Algorithms.
Semantic Segmentation and Recurrent Neural Networks. 3D Video Deep Learning using TensorFlow, Keras,
and PyTorch. Training South African Graduates in Machine Learning and BPM Workflow Development. Php
and SQL development,Joomla,Gauteng SA

03/03- 10/05 **Lotus Domino Training**   Seligate Computers

Lotus Domino and Java Training,Zimbabwe

03/03- 10/06 **Lotus Domino Training**   Intergra Computing

Lotus Domino Training,Zimbabwe

Current OffShore and Part Time Work Experience

02/18 - 03/2019 **IBM BPM and Enterprise Design Consultant** ACSA Airports Company,South Africa

IBM BPM Design for Workflow solution
Reporting using Oracle BI for Workflow Reporting and ClickView

02/18 - now **Web Development Consultant** South African NGOs and small SMEs ,South Africa

Web Development and Recommender Systems solution using mobile Development,BootStrap and AngularJS Frameworks
Linking to CRM

00/18 - 04/2018 **BPM Trainer,Evenings Only** HCL Technologies Consultancies/SiyaFunda Technologies ,South Africa

Training 10 disadvantages South African Graduates on developing on iBM BPM 8.6
Training developers on calling BPM from a mobile app using native Android or iOS code and REST
Training Developers on Sparks and Brazos coach frameworks, as well process design fundamentals on IBM BPM.
The last 3 months was volunteer work

03/18 - now **BPM Trainer,Weekends Only** KAribuTechs Consultancy ,South Africa

Training 4 disadvantages South African Graduates on developing on iBM BPM 8.6 and Java Programming
Training developers on calling BPM from a mobile app using native Android or iOS code and REST
Training Developers on Sparks and Brazos coach frameworks, as well process design fundamentals on IBM BPM.

Volunteer Work

02/15 - 12/2016 **IBM BPM and Enterprise Training and Mentorship** South African Trainee Graduates from iOne and IBM at Standard Bank,South Africa

IBM BPM Design for Workflow solution
Training on BPM fundamentals and development

Intergration Tools

Broker ★★★★★
Datapower ★★★★☆
Webmethods ★★☆☆☆
ODM ★☆☆☆☆

OS Preference

GNU/Linux ★★★★★
Unix ★★★★☆
MacOS ★★☆☆☆
Windows ★☆☆☆☆

Places Lived

Languages

Shona ★★★★★
English ★★★★★
Ndebele ★★☆☆☆

Honors & Awards

10/2000	**2nd Best Computer Science Student UZ, Stanbic and Standard Chartered Prizes**	Java Programming
	University of Zimbabwe.	
	2.1 class	
10/1997	**Best Mathematics Student Finalist**	Zimbabwe Mathematics Olympiad
	Zimbabwe National Old Mutual Maths Olympiad.	
	Goromonzi	

Certifications

12/2016	**SAFE Agilist Developer**	Scaled Agile Framework
	Standard Bank of SA	
2006 - 2006	**Certified CISCO Network Course**	University of Zimbabwe
02/2009	**Certified Java Developer**	Sun Oracle Exams
	Java Exams 1.5	
02/2013	**BPM Certified Intergration Developer V8.0**	IBM Examinations
	iBPM Development	
02/2012	**Togaf Certified Architect**	Togaf Certified Architect Examinations
	Togaf Certified Architect	
02/2011	**Certified Websphere Administratr V7.0**	IBM Examinations
	iBPM Development	
02/2011	**Certified Websphere MQ Administrator V7.0**	IBM Examinations
	iBPM Development	
02/2011	**Certified Websphere Webservices Developer V7.0**	IBM Examinations
	iBPM Development	
02/2008	**BPM Certified DB2 Developer V8.0**	IBM Examinations
	iBPM Development	
08/2000	**Certified CLP Lotus Notes and Domino**	IBM Examinations
	iBPM Development	

Trainings Conducted

12/2017	**IBM BPM 8.6 Training**	IBM BPM Training
	HCL Technologies Sandton,South Africa	
04/2005	**Certified Lotus Domino Development**	IBM Lotus Domino,Integra
	CLP,Zimbabwe	

Major Projects Done

1. Karibu Technologies Designer • Semantic Web Ontoligies using Protege4.3 and SPARQL Querries. • Model Driven Engineering and MDA. • Jena Framwework and OWL ontologies

2. Karibu Technologies Designer • Cloud Computing solution using Windows Azure ,C for DVD Rental Client

3. SBSA Designer,2012-2013 • Development of BPM based process linking to SAP CRM using Lombardi,Tivoli LDAP and DSML as well as Datapower in implementing ESB for the system.REST Technology is used

4. Ubank Developer • ORM Fraud Reporting System • Glassfish and ZK Framework • Spring and Hibernate • Maven,Subversion and Nexus

5. Ubank Designer • Payment Manager Workflow Design using Mysis Payment Manager Workflow a. NAEDO Issuing b. NAEDO Acquiring c. EFT Credits d. EFT Debits e. RTC Processing Workflow • Using Hibernate and Spring Framework • Design and implementation stage.

6. South African Refugee Action (SARA) System Designer and Developer • Designing a system for SARA to enter refugee information and data online in the whole of South Africa using a. ZK MVC Java frontend development b. Spring Hibernate framework c. Object Oriented Design d. MySQL Database e. Ajax and JQuerry

7. 2011 WebSphere MQ Cluster Configuration Designer • Designing a Distributed cluster for Websphere MQ for Flexicube production on an AIX environment

8. 2011 Ubank Systems Disaster Recovery of Flexicube ,TDI Gateway Systesm and Payment Gateway Systems WebSphere,MQ Configuration Specialist • Setting up the DR environment for Flexicube java programs to match the production ones • Checking the JMS and MQ and JDBC Connections • Updating the latest jars and ear files. • Troubleshooting Websphere Cluster errors. • Assisting any errors arising

9. GPFS Flexicube Production Server Designer and Implementer(Jan Feb 2011) • Installing and setting up WebSphere,WebSphere MQ and HTTP Server on GPFS File System on AIX, • Installing and setting up the Flexicube System on the GPFS box and setting up and tuning up performance parameters • Installing and setting up Java on the AIX box and setting up and tuning performance parameters • Setting up clustering on the box • Setting up HACMP on the box

10. Flexicube Host Server Configurator-Ubank November 2010 • Setting up the Host and Websphere Server for Flexicube on the DR Site

11. Misys Payment Manager Deployment Specialist (August 2010)-Teba Bank • Installing the AIX LPAR Websphere and MQ Softwares for Dev, SIT and Production Environmoents as well as the DR Site. • Installing and Configuring the Payment Manager MQ Queues as well as the connection to Service Mix Active MQ.

12. Websphere and MQ Upgrade Architect(June 2010)-Teba Bank • Upgrading all Tebabank Servers from MQ 6 to MQ7 as well WebSphere from 6.1 to 7 • **Installing Websphere 7 on GPFS file system**

13. Icons Administration Portlets(Vodacom) J2ee Developer(2010) • Developing Icons SMS Portlets for sending common messages to Vodacom subscribers using JSF Portlets and Vodacom J2EE ESB Design model

14. Websphere Portal conversion to Liferay Developer(June-December 2009)-Vodacom • Running python scripts to convert IBM portlets to JSR portlets • Changing code to suit JSR 286 standards for the portlets • Testing on Dev,SIT and QA with the Testers on Liferay running on top of Websphere 7

15. Talking Points(Vodacom) Developer(December 2009) • Developing talking points portlets at Vodacom

16. LDAP Administration Portlets (Vodacom) Developer(2010) • Making changes and adding functionalities to the Morpheus 11 Adminsitration Portlets adminstrations • Adding group administration to the LDAP Portlets • Adding Process server functionality to the LDAP Portlets

17. Vodamanage Portlets Developer(2009) • Debugging Portlets for the Vodamanage Business unit **18. Bulk Framework Projects-Converting Datalayer**

19. Converting IBM Portlets to JSR286 Portlets a. LDAP API b. JSF 168 Portlets Dev Architect(2008-2010) Vodacom • Developing JSF Portlets for Liferay and Websphere • Developing J2EE Applications Business Delegates,DTO,EJB,DAOs • Liferay Conversion of IBM Portlets • Changing Talking Points projects • Changing Vodacom Dealerweb projects

20. Bulk Refunds(Vodacom) Process Server Developer (November to March 2009) Vodacom • Designing the Websphere Process Server Implementation for this project. • Business Rules Setup • Implementing Escalations and Approval Levels using human tasks.

21. Credit Notes(Vodacom) WebSphere Process Developer(2009) • Designing the Websphere Process Server Implementation for this project. • Business Rules Setup • Implementing Escalations and Approval Levels using human tasks.
22. Refunds Project(Vodacom)

22. eLife(Life Administration System) ZB Life Assurance Designer (August-November 2008)

23. Project Architect (2005-2008 April) • Designing the Process Server Implementation for this project. • Business Rules Setup • Implementing Escalations and Approval Levels using human tasks. • Portal Client • Credit Notes Application Administration • Leading the team that analysed requirements. • Leading the design of both systems and drawing up of use case models,class diagrams as well as sequence diagrams using Rational Application Developer • IT Steering Committee Secretary for the project • Developed and managed development of the following modules a. New Business,Product Setup b. Medical Underwriting c. Reinsurance Module d. Premium Processing e. Claims Processing f. Stop Order Processing g. Unit Linked Module h. Actuarial

Valuations Module i. New Business Reports j. Product Rules Setup k. Accounting Module l. Debit Order Processing m. Suspense transfers n. LDAP security using Lotus Domino • Technologies included Websphere 6.1,Suse Linux on pSeries Server,Rational Application Developer 6.0 then 7.0,Lotus Domino 8 as LDAP server, JSPS, Servlets, Filters, EJBS, JDBC,SQLJ, Webpshere Application Server,IBM HTTP Server ,javascript,CSS,HTML,XML • The system was deployed on a pSeries Server running on SUSE Linux and IBM HTTP Server running on iSeries Server. • Trained the developers on J2EE and Rational Application Developer.

24. eAnnuties(Annuties Administration System)
March to December 2007-ZB Life Assurance • Leading the design of both systems and drawing up of use case models,class diagrams as well as sequence diagrams using Rational Application Developer • IT Steering Committee Secretary for the project • Developed the following modules a. New Business,Product Setup 25. eLife Requirements Analysis 2006 February-June • Leading a team that did the analysing of Individual Life business Requirements for new business,premium processing and claims 26. Actuarial Valuations Data Developer-ZB Life 2008 • Develop database and java scripts for ZB Life Actuarial Valuations for 2005,2006,2007 and 2008 27. eBas deployment-Intermarket Life Assuarance Architect-ZB Life 2006 • Deployments of Employee Benefits system on pSeries server • Configuring WAS Servers for the system and installations of DB2 instances on Suse Linux boxes • Developing Web services to migrate data from HBOS Financial Systems data in UK. 28. CIMAS Medical Aid Society Heath Website(www.cimas .co.zw) Web Developer(2001) 1. Developing interface to users and patients to access their health information online 2. Used Websphere 3.5,Lotus Domino as frontend design as well as Java to connect to Oracle 29. Web Based Human Resources Appraisal System(CABS Building Society) Systems Developer-2004 and 2005 Developed using Lotus Domino, Domino for Java ,Lotus Script, and DB2 a web based system for internal staff monthly and annual appraisal as well as bonus payments 30. Mortgage Approval -CABS Systems Developer-2004 Developed a system for mortgages online using Lotus Domino

25. Leave Automation System,CABS Systems Developer,2005 Developed a Leave Approval System for CABS Employees using Lotus Domino and Java 32. LAN/WAN Setup-Unilever,2004 Network Engineer Setting up a new LAN and WAN for Unilever Harare and Bulawayo ,Configuring new routers as well. 33. Sales Tax to VAT changeover on Accpac-Exxonmobil Zimbabwe Systems Developer-2003 Configuring Accpac System for VAT changeover Modifing reports to accept large values and also for VAT Training users on the changes in all the branches countrywide 34. Nortel PABX Setup and Call Monitoring System(Exxonmobil) Systems Architect , 2002 PABX Setup Setup of Call Monitoring System 35. Legal Documents Repository Systems Developer,2001 Developed a Legal Documents Repository Systems for ExxonMobil Legal Department using Lotus Domino 36. Inventory Valuation Systems-Accpac Lubes and Oils Inventory Management Systems Developer-ExxonMobil,2002 Developed a System for generating reports for Depot Reports using Microsoft Access and Visual Basic

Other Info

For the BPM Job market:
Reading and online browsing as well. I got a daughter Miriro Sheridan and married to my wife Nyaradzai. Website development is my passion

KaribuTechs AI Reseach Institute

I own KaribuTechs company which has a staff complement of 15 developers in Zimbabwe and South Africa. The South African team is consulting in IBM BPM, Java and Web Development for big customers like Standard Bank. Focus is on Machine Learning, Deep Learning, Time Series, Graph Networks, Telecommunications and Mobile and Web Development frameworks.

The **Zimbabwean Team** is focusing on machine learning technologies, computer vision, mobile and web development as well as process development

Revenue
We have genegerated ten million rands in our first two years of operation and peak for the organization through consultation with various customers

Vision
Our current vision is to go into Virtual Gaming, robotics and Self Driving cars as well as insurance system development.

Key Project-SingForMe
Portal for Generating AI Music Hub with 3D modelling for past songs. Using AI for modelling and Augumented Reality for the music generation. SpringBoot and Camunda workflow for backend using Azure Cloud as well as use of Android and Flutter development models. Mongo DB and Alfresco for doument workflow modelling. Use of Tensorflow.Js javascript framework for facial recognition of the music model as well as APIs to do the music scene. Use of Python APIs for the 3D modelling and tensorflow implementation.

Key Project-InsureHub
Portal for insurance Hub with 3D modelling for damaged cars. Using AI for modelling insurance cars and Augumented Reality for the Cars. SpringBoot and Camunda workflow for backend using Azure Cloud as well as use of Android and Flutter development models. Mongo DB and Alfresco for doument workflow modelling. Use of Tensorflow.Js javascript framework for facial recognition of the claims model as well as Google Address APIs to locate accident scene. Use of Python APIs for the 3D modelling and tensorflow implementation.

Research Web Projects and Customers

12/2017	**RedHot Cleaning Website** *www.redhotcleaning.co.za*	Redhot South Africa
04/2013	**KaribuTechs.com** *KaribuTechs.com*	KaribuTechs.com
12/2012	**SCC-consulting Cleaning Website** *http://www.scc-consulting.co.za*	SCC-consulting South Africa
12/2012	**Superior carpet cleaners Cleaning Website** *http://www.superiorcarpetcleaners.co.za*	Superior carpet cleaners South Africa
12/2013	**SARA Refugees Website** *http://www.saraction.org.za*	SARA Refugees South Africa
12/2013	**SARA Refugees Website** *http://www.saraction.org.za*	SARA Refugees South Africa
12/2013	**SARA Refugees Website** *http://www.saraction.org.za*	SARA Refugees South Africa
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12/2013	**SARA Refugees Website** *http://www.saraction.org.za*	SARA Refugees South Africa
12/2013	**SARA Refugees Website** *http://www.saraction.org.za*	SARA Refugees South Africa
12/2013	**KaribuTechs Website** *http://www.saraction.org.za*	SARA Refugees South Africa
12/2013	**Meridan Designs Fashion Website** *http://www.meridan.co.za*	Meridan Designs Fashion South Africa

Publications

	TITLE			CITED BY	YEAR
	A survey on facial recognition based on local directional and local binary patterns K Chengeta, S Viriri 2018 Conference on Information Communications Technology and Society (ICTAS …			14	2018
	A review of local, holistic and deep learning approaches in facial expressions Recognition K Chengeta, S Viriri 2019 Conference on Information Communications Technology and Society (ICTAS …			4	2019
	Facial expression recognition: A survey on local binary and local directional patterns K Chengeta, S Viriri International Conference on Computational Collective Intelligence, 513-522			2	2018
	Image Preprocessing Techniques for Facial Expression Recognition with Canny and Kirsch Edge Detectors K Chengeta, S Viriri International Conference on Computational Collective Intelligence, 85-96			1	2019
	Video sequencing based facial expression detection with 3d local binary pattern variants K Chengeta, S Viriri 5th international conference on computer science, engineering and …			1	2018
	A Review of Local Feature Algorithms and Deep Learning Approaches in Facial Expression Recognition with Tensorflow and Keras K Chengeta Mexican Conference on Pattern Recognition, 127-138				2019
	Enhanced Feature Selection for Facial Expression Recognition Systems with Genetic Algorithms K Chengeta International Conference on Engineering Applications of Neural Networks, 176-187				2019
	Automated Facial Micro-expression Recognition Using Local Binary Patterns on Three Orthogonal Planes with Boosted Classifiers: A Survey K Chengeta Advances in Computer Communication and Computational Sciences, 671-686				2019
	Facial Expression Recognition using Local Directional Pattern variants and Deep Learning K Chengeta, S Viriri Proceedings of the 2018 International Conference on Algorithms, Computing …				2018
	Comparative Analysis of Emotion Detection from Facial Expressions and Voice Using Local Binary Patterns and Markov Models: Computer Vision and Facial Recognition K Chengeta Proceedings of the 2nd International Conference on Vision, Image and Signal …				2018
	Comparative Analysis of Emotion Detection from Facial Expressions and Voice Using Local Binary Patterns and Markov Models K Chengeta				2018
	Facial Expression Detection for video sequences using local feature extraction algorithms K Chengeta, S Viriri				