

# CURRICULUM VITAE

---



Edwin Stanley Peer

(Technology Entrepreneur)

<http://za.linkedin.com/in/espeer>

**Technology skills:** Cloud computing, software development, embedded systems, computer networking, digital forensics, Linux and open source software.

**Business skills:** Entrepreneurship, business analysis, business development and strategy

Last updated: January 2015

## PERSONAL INFORMATION

---

**Surname:** Peer

**First names:** Edwin Stanley

**Residential address:** Pierre van Ryneveld  
(full address available on request) Centurion  
South Africa

**Postal address:** P.O. Box 11863  
Die Hoewes  
Centurion, 0163

**Telephone number:** +27 83 657 4005

**Email address:** [edwin @ peer.co.za](mailto:edwin@peer.co.za)

**Date of birth:** 6 August 1979

**Age:** 35

**Gender:** Male

**Place of birth:** Munich, Germany

**Nationality:** Dual (South African, British)

**RSA identity number:** 790806 ---- ---

**Marital status:** Married

**Religion:** Christian (protestant)

**Home language:** English

**Second language:** Afrikaans (speak, read, write)

**Health:** Excellent

**Driver's licence:** Code EB – light motor vehicle  
(also attended BMW's advanced  
collision avoidance and skid  
control course – September 2005)

**Criminal offences:** None

**Hobbies / interests:** Music (drums), Hi-Fi, Amateur  
Radio, Motor Rallies, Electronics,  
Economics, Law

## SECONDARY EDUCATION

---

<b>School attended:</b>	Clapham High School (Pretoria)
<b>Highest standard passed:</b>	Matriculated with university exemption (1997)
<b>Subjects passed:</b>	English (1 <sup>st</sup> language level) Afrikaans (2 <sup>nd</sup> language level) Mathematics Science Accountancy Biology (all with distinctions on higher grade)
<b>Awards:</b>	<b>Service:</b> Technical service (1995, 1996, 1997)  <b>Shooting:</b> School colours (1996)  <b>Academic:</b> Colours (1995, 1996, 1997) Top 10 (1993, 1994, 1995) Top academic (1996, 1997) Dux scholar (1997)  <b>Honours:</b> Awarded school honours (1996)
<b>Leadership roles:</b>	Captain shooting team (1996, 1997) Class captain (1996, 1997) Member of SRC executive committee (1997) Computer centre prefect (1996, 1997) School prefect (1997)
<b>Extra mural activities:</b>	Shooting team (1993 – 1997)

## TERTIARY EDUCATION

---

**University attended:** University of Pretoria, South Africa (1998 – 2004)

**Degrees obtained:**

**BSc: Information Technology : Computer Science**

Passed with distinction (Conferred, March 2001)

**Awards: Medal of the vice-chancellor and principal**

Awarded for the best achievement in all the undergraduate study years in any scientific field at the University of Pretoria.

**ISIS Software engineering award**

Awarded for the best software project by a group of final year students in Computer Science.

**Academic Honorary Colours**

Awarded by the student representative council for academic excellence.

**BSc (Hons) : Computer Science**

Passed with distinction (Conferred, April 2002)

**Awards: Roelf van den Heever / EPIUSE prize**

Awarded to the best student in Computer Science at honours level.

**Academic Honorary Colours**

Re-awarded by the student representative council for academic excellence.

**NRF Bursary**

Awarded by the NRF (National Research Foundation) to the value of R8 000 towards the completion of this degree.

**MSc : Computer Science, specialising in Computational Intelligence**

Passed with distinction (Conferred, April 2005)

**Awards: Academic Honorary Colours**

Re-awarded by the student representative council for academic excellence.

**NRF Bursary**

A prestige scholarship, awarded by the NRF (National Research Foundation) to the value of R66 000 towards the completion of this degree.

(full academic record as appendix)

## WORK HISTORY

---

**News Paper Delivery – Pretoria News** (1994, 1995)

**Cashier – Toit's Nissan** (September 1997 – October 1998)

**Technical Support – Digital Peripheral Services** (December 1997, holiday job)

**Linux Administration – Clapham High School** (November 1997 – December 2004)

**System Administration – Computer Science Department, University of Pretoria**  
(November 1998 – December 2001)

**Programmer – Obsidian Systems** (April 2000 – October 2000)

**Lecturer – Computer Science Department, University of Pretoria**  
(August 2001 – November 2003)

**Lecturer – Information Science Department, University of Pretoria**  
(July 2002 – November 2003)

**Linux Consultant – Raspberry Solutions**  
(July 2004 – December 2004)

**Managing Director – Leaseware** (January 2005 – December 2009)

**Director – Open Track Studios** (August 2005 – December 2011)

**Senior Developer – Revelation Systems, now DataCyte**  
(March 2007 – August 2008)

**Senior Developer / Team Lead – Traffic Management Technologies**  
(September 2008 – February 2011)

**Director – It Is Consulting** (January 2010 – present day)

**Director – It Is Electronics** (November 2010 – present day)

**Director – NeutrINX** (September 2011 – present day)

**Co-founder – isoho.st** (February 2013 – present day)

### **The Star City BBS (1993 - 1997)**

While still in high school, I built and was the SysOp for The Star City BBS. It initially ran BinkleyTerm for Fidonet mail and RemoteAccess for file sharing on top of DESQview/DOS and was later switched to AdeptXBBS on OS/2. The BBS hosted a substantial library of shareware and freeware software and daily multiplayer turn based games. Finally unplugged the modem when call volumes dropped to almost nothing due to the Internet making BBSes redundant.

### **Watts (1995 - 2000)**

Served on the committee as the editor of the monthly club newsletter for the Pretoria amateur radio club. Beyond the desktop publishing work, the task also required soliciting technical content from the club membership, writing editorial pieces and handling the full production process, including printing, folding, filling envelopes, labelling and postage to approximately 150 members. I also published an online version of the newsletter in the early days of the Internet in South Africa.

### **CILib: Computational Intelligence Library (2003, 2004)**

Founded the CILib project as part of my masters studies, a collaborative open source software platform for performing research in Computational Intelligence. To this date, it is used by the Computational Intelligence Research Group at the University of Pretoria (and now other universities abroad) as a platform for teaching and performing research in computational intelligence.

### **International ACM Programming Contests sponsored by IBM (2003 - present)**

Took the lead organizing the 2003 national contest and subsequently assisted with the design and specification for the software that is currently used for administrating the annual regional contest that runs across multiple sites across South Africa and the African continent. I have also been serving as a contest judge every year since.

### **Linux Kernel: Sentech My Wireless Driver Submission**

Submitted on behalf of the original author.

### **Rosegarden: Ensoniq MR76 Midi Map**

Developed the configuration for the Ensoniq MR76 keyboard and submitted for inclusion in the Rosegarden project.

### **CMS: African News Dimension (2005 – 2007)**

Developed a content management system for our first Leaseware customer, a news site managing the entire editorial work flow. Amateur and professional journalists across Africa could submit multimedia stories which would be syndicated to other news agencies and content licensees on a revenue sharing basis. All stories were vetted by editorial staff at African News Dimension with the system tracking the reputation of each journalist so that well reputed journalists could eventually have their stories

published directly to subscribers who could for a fee get early access to developing stories. The site had just begun to gain traction with a few million page views a month when our customer ran out of funding and folded.

### **Handsfree.co.za (2005)**

Developed a niche e-commerce site in PHP selling Bluetooth headsets that ultimately failed to generate significant traction in the market.

### **Victory (2006)**

Lead a team of 3 developers in converting an organisation wide paper based management system into a custom ERP software solution in the freight and forwarding industry. The software handled customer relationship management, customs processes for import and export, transaction processing and freight tracking as well as overall management of staff work flows.

### **Plasticity DB (2007, 2008)**

Worked on the redesign and implementation of a next generation NoSQL data storage engine for Revelation Systems.

### **iControl (2008 - 2012)**

Technical lead on TMT's iControl product, a radar based platform for controlling traffic signals at road intersections as well as counting and classifying freeway traffic.

### **Linux Kernel: Board support for MXM-8x10 and iControl / SafeTCam platform**

Reworked the original board support code for the Embedian MXM-8x10 development board and followed through to mainline inclusion (the iControl variant is used in TMT's speed enforcement camera).

### **RallyTime (2010, 2011)**

Designed and wrote the software for the timing and safety tracking system used for the SA national motor rally championships. The system has already proven instrumental in reporting an emergency where a photo journalist was run over by a rally car during an event.

### **Calog FFT (2011, 2012)**

The design and implementation of an electronic hand held acoustic leak detector for steam boilers in power stations using Fourier analysis. The device is based on an STM32 ARM microprocessor, where we (It Is Electronics) performed the PCB layout and design.

### **NeutrINX, The Neutral Internet Exchange (2011 - present)**

A non-profit organisation facilitating the interconnection of data and voice networks by building and operating open access, carrier neutral Internet exchanges and associated data centre infrastructure.

### **JKismet (2012)**

Wrote an open source TCP/IP client library for the Kismet network analyser in Java for the purpose of managing spectrum in the ISM bands on congested radio towers.

### **Scientrix Platform (2012)**

Consulted on the design of a corporate strategy planning tool based on nested matrices for Scientrix.

### **Netstar Mobot (2012)**

Wrote test routines and installation support software for the next generation Netstar tracking and fleet management product and its mobile commissioning tool. The project involved both bare metal ARM work using a proprietary RTOS as well as development on top of Wavecom's (now Sierra Wireless) OpenAT framework.

### **Mobtopic (2012)**

Built a prototype for a location aware social networking mobile application with a fellow entrepreneur that lets you connect and chat in real-time with the people nearby that are sharing the same real world experience. Following Lean Startup principles and after pivoting a few times, we abandoned the project early due to lack of traction in local markets and the realisation that it is impossible to compete with the output of Silicon Valley from within South Africa in this space (not to mention the difficulty of getting such projects funded locally).

### **Microcode for Netronome Flow Processors (2012 - present)**

Consulting under the It Is Consulting brand, I have been developing microcode under retainer for the next generation Netronome NFP-6xxx flow processing chip, enabling packet switching, software defined networks and stateful firewalling solutions at line rates of up to 100Gbps. These high performance network cores are the basis of hardware for running data centre networks and massive scale hardware virtualisation workloads, such as software defined cloud computing networks.

### **isoho.st virtualisation platform**

Building cluster management, automation and billing systems for virtual machine hosting infrastructure based on libvirt/qemu and ceph/rados.



### **Using Neighbourhoods with the Guaranteed Convergence PSO**

E.S. Peer, F. van den Bergh, and A.P. Engelbrecht

In proceedings of the IEEE Swarm Intelligence Symposium, April 2003, Indianapolis, IN, USA

### **CIRG@UP OptiBench: A statistically sound framework for benchmarking optimisation algorithms**

E.S. Peer, A.P. Engelbrecht, and F. van den Bergh

In proceedings of the IEEE International Congress on Evolutionary Computation, December 2003, Australia

### **A Serendipitous Software Framework for Facilitating Collaboration in Computational Intelligence**

Edwin S. Peer, MSc dissertation, October 2004

### **Building Sustainable Collaborative Research Software**

E.S. Peer, A.P. Engelbrecht and F. van den Bergh,

### **Solutions to Open Source Risk Assessment: How and When Can Open Source Projects Be Classified As Mature?**

Edwin Peer

In proceedings AMC International: Open Source Impact 2006, Johannesburg, South Africa

## **SOCIETY INVOLVEMENT**

---

### **Pretoria Amateur Computer Club**

(1993 – 1998)

Served on committee during 1998.

### **OS/2 User Group**

(1994 – 1999)

Member.

### **Pretoria Amateur Radio Club**

(1994 – present day)

Served as club newsletter editor, a monthly publication, January 1995 to April 2000.

Served as club web master, November 2005 to January 2008.

### **Novell User Group**

(1997 – 2000)

Member.

### **Computational Intelligence Research Group**

(2001 – present day)

Alumni

### **Java User Group of South Africa**

(2003 – 2009)

Served as chairman 2005 - 2009

### **Tuks Linux User Group**

(2003 – 2010)

Founding member.

## REFERENCES

---

**Prof. Andries P Engelbrecht**

Department head, Department of Computer Science, University of Pretoria

**Prof. Derrick G Kourie**

Professor, Department of Computer Science, University of Pretoria

**Ms. Reinet Chatre**

Software Engineer, Open Source Technology Centre, Intel

**Mr. Eddie Dunkley**

Senior strategist and web manager, Realtime Travel Connections

**Mr. Gert D Lubbe**

Advocate

**Mr. Graeme A Pyle**

Entrepreneur

**Mr. Simeon Miteff**

Senior Technologist, CSIR Meraka Institute

**Mr. Gerhard Lamprecht**

Managing Director, Radar Vision

(contact details available on request)

## FULL ACADEMIC RECORD

---

### **Bsc: Information Technology: Computer Sci. 1998, Full-time**

WTW114	Calculus	78	Pass with distinction
INF170	Informatics	**	Exempted pass
WTW115	Discrete structures	88	Pass with distinction
WTW126	Linear algebra	70	Pass
WTW128	Calculus	82	Pass with distinction
COS110	Program design	95	Pass with distinction
COS120	Program design	97	Pass with distinction
WST110	Mathematical stats	88	Pass with distinction
WST120	Mathematical stats	91	Pass with distinction
WTW112	Dynamical systems	75	Pass with distinction
WTW123	Numerical analysis	77	Pass with distinction

### **Bsc: Information Technology: Computer Sci. 1999, Full-time**

COS222	Operating systems	90	Pass with distinction
COS284	Computer arch.	97	Pass with distinction
WTW218	Calculus	67	Pass
WTW211	Linear algebra	84	Pass with distinction
INF270	Informatics	86	Pass with distinction
COS221	Data bases	90	Pass with distinction
COS213	Adv programming	87	Pass with distinction
WTW220	Analysis	81	Pass with distinction
WTW285	Discrete structures	92	Pass with distinction
WTW221	Linear algebra	84	Pass with distinction
ERR220	Computers	91	Pass with distinction

### **Bsc: Information Technology: Computer Sci. 2000, Full-time**

COS301	Software engineering	84	Pass with distinction
COS314	Artificial intelligence	95	Pass with distinction
COS324	Distributed systems	97	Pass with distinction
COS333	Programming lang.	92	Pass with distinction
COS341	Compiler construction	94	Pass with distinction
COS332	Computer networks	95	Pass with distinction
WTW385	Discrete structures	93	Pass with distinction
COS343	Trends in IT	93	Pass with distinction

### **Bsc(Hons): Computer Science. 2001, Full-time**

GRF780	Graphics	95	Pass with distinction
KMI780	Artificial intelligence	89	Pass with distinction
PGT780	Programming lang.	100	Pass with distinction
RNW780	Computer networks	96	Pass with distinction
PIN781	Adv. software eng.	97	Pass with distinction
DCP780	Data compression	100	Pass with distinction
KVM780	Machine learning	93	Pass with distinction
FAC751	Formal aspects	100	Pass with distinction

### **Msc: Computer Science, 2002 - 2004, Full-time**

RKW890	Computer Science	88	Pass with distinction
--------	------------------	----	-----------------------