

Brett Terespolsky

Electrical and Electronic Engineer

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*Give me six hours to chop down a tree and I will spend the first
four sharpening the axe.*

ABRAHAM LINCOLN

Objective

Hard-working, punctual, ambitious, fast-learner and eager to learn. Able to work on own initiative and as part of a team. Comfortable in leadership roles.

Looking for a position that will constantly challenge my abilities and utilise my skills in server management and/or R&D.

Education

2002–2007

School leaving certificate (IEB), *Yeshiva College of South Africa (High School)*, Johannesburg.

Prefect in Grade 9 & 12.

Five distinctions in grade 12.

Achieved full academic colours in grade 11 & 12.

Achieved half colours in chess.

2008–2011

BSc Eng Electrical, *University of the Witwatersrand*, Johannesburg.

Electrical engineering stream.

Made the Dean's list (top 10% of students in each degree) in 2008, 2009 & 2010. Received a certificate of merit in 2010 for Control. Summary of knowledge areas covered:

- Engineering skills and design
- Mathematics
- Physics
- Data structures & algorithms
- Electronics
- Electric & magnetic systems
- Software development and engineering
- Signals & Systems
- Microprocessors
- Electromagnetic Engineering
- Power Engineering
- Probabilistic system & signal analysis
- Control
- Economics of design
- High frequency techniques
- High voltage engineering
- Measurement systems
- Engineer in society
- Systems management & integration

Since 2012

MSc Eng (by dissertation), *University of the Witwatersrand*, Johannesburg.

In the process of obtaining an MSc Eng by dissertation only in the field of lightning mathematical modelling and protection.

Employment & Experience

2005–2007

Salesman, Technical assistant (repairs), Car-o-cell Phones (part-time), Johannesburg.

Tasks and responsibilities:

- Repair cellphones.
- Be familiar with all products available
- Be able to advise customers on the most optimal choice
- Customer satisfaction

Mar–Sep 2006

Salesman, The Golfers Club (part-time), Johannesburg.

Tasks and responsibilities:

- Be familiar with all products available
- Be able to advise customers on the most optimal choice
- Customer satisfaction

2007–2009

Database administrator, Engineering consultant, Camp counsellor, Bnei Akiva (Community/Charity Work).

Tasks and responsibilities:

- Maintain the Bnei Akiva database
- Train users of the database
- Design upgrades to the database software
- Maintain office network infrastructure
- Minimise downtime
- Migration of the entire database to an online system

Mar–Jun 2009

Electrical engineering consulting intern, MKA/KKA House (part-time), Johannesburg.

Tasks and responsibilities:

- Study of South African lighting and cabling legislature
- Application of studied material in the design Placed lightning, cabling, distribution boards, electrical outlets, etc on blueprints of a mall. Customer satisfaction

Since 2012

Freelance contracting, Self-employed (part-time).

Various tasks performed for various companies as listed below.

○ **Mann Made Media:**

Tasks and responsibilities:

- Research & development
- Design of a heart-rate monitor system (hardware and software)
- Coding done in Arduino and Processing
- Connect various systems for use in an exhibition

○ **Blapit:**

Tasks and responsibilities:

- Research & development
- Product feed aggregation from multiple online sources (Amazon, eBay, etc.)
- Populate database with the aggregated data
- Work on intelligent machine learning algorithms
- Design and analysis of end-to-end solution

○ **CBi-Electric:**

Tasks and responsibilities:

- Learn about and understand all types of circuit breakers and various techniques used in design and implementation circuit protection
- Produce application notes detailing time delay curves, Cascading, Selective co-ordination and various types of circuit breakers

○ **University of the Witwatersrand (Digital Arts department):**

Tasks and responsibilities:

- Setup IP Camera
- Create a live video feed accessible via a webpage
- Configuration of Dynamic DNS
- Domain management

Since 2012

Chief Technical Officer (CTO), *Medical Assistive Technologies*, Gauteng.

Co-founder of Medical Assistive Technologies.

Tasks and responsibilities:

- Design of medical technologies
- Technical documentation
- Pitching to investors
- Assist my business partner with all the general administration of the company

Skills and Tools

Proficient or familiar with a vast array of programming languages and technologies, including:

Development

Languages	C, C#, C++, Java, Python, Ruby, Perl, Visual Basic, SQL, Processing, Arduinos, \LaTeX , MATLAB/Octave, Mathematica, Shell/Bash, Ruby, GNU Make	Web	HTML/XHTML, CSS, JavaScript, JQuery, PHP
Frameworks	Django, Google AppEngine	Databases	MySQL, PostgreSQL, SQLite
Formats	XML, HAML/YAML, JSON	Methods	Object Oriented Programming, MVC, Unit Tests, UML
Source Management	SVN, Git, Mercurial	Tools	Doxygen, GitHub

Systems and Networks Administration

Web	Apache, Nginx, Wordpress, PHPBB	Mail	Postfix
Operating Systems	GNU/Linux (Debian, Ubuntu, LinuxMint), MacOS X, Windows	Databases	MySQL, PostgreSQL, SQLite
Virtualization	VMWare	Security	SSL, OpenSSH

Office and tools

Office	OpenOffice/LibreOffice, Microsoft Office, Gimp, Inkscape	Project Management	Asana, Trello, GanttProject
Productivity	Mind Maps	Edition	\TeX , \LaTeX , \XeTeX , \LuaTeX

Specific Skills

- Research & development
- Database administration
- Strong technical skills
- Mathematical Modelling
- Eliciting Requirements
- Testing & Validation
- Server management
- Strong written and verbal communication skills
- IT Fluency
- Object-Oriented Analysis
- Decomposing the Abstract into Details
- Problem Solving

Awards & Achievements

2005

First Aid Course (Level 1), *Yeshiva College of South Africa*, Johannesburg.

2008–2010

Dean's List, *University of the Witwatersrand*, Johannesburg.

2010–2013

Invited to attend four global Youth Leaders Conferences (ISLP).

2011

Certificate of Merit in Control I, *University of the Witwatersrand*, Johannesburg.

2012

Part of the organising committee of PowerAfrica 2012 conference, *University of the Witwatersrand*, Johannesburg.

- 2012 Attended an IEEE SBC leadership conference, Madrid.
- 2012 Wrote a paper for and presented at ICHSIP (a conference on high speed imaging and its applications), Pretoria.
- 2012 Won the best student paper award at ICHSIP30, Pretoria.
- 2012 Founded Medical Assistive Technologies.
- 2013 Won (as Medical Assistive Technologies) the ORTJET business plan competition, Johannesburg.
- 2013 Won (as Medical Assistive Technologies) the GAP Medical competition, Pretoria.

Memberships

- Since 2009 Member of the Golden Key International Honour Society.
- Since 2009 Member of the IEEE.
- Since 2012 Member of the SAIEE.
- 2011 IEEE Wits Student Branch Committee Member (Webmaster), *University of the Witwatersrand*, Johannesburg.
- 2012 Appointed chairperson of the IEEE Wits Student Group, *University of the Witwatersrand*, Johannesburg.
- 2012 Introduced the SAIEE into the university at a student level forming the SAIEE-IEEE Wits Student Group, *University of the Witwatersrand*, Johannesburg.
- 2014 Started volunteering for the IEEE SA Section.
- 2014 Started as volunteer for the SAIEE.

Interests

- o Coffee
- o Music
- o F1
- o Gym and health
- o Cars
- o New technologies
- o Computers
- o Servers

Foreign Languages

English	Native	Mother Tongue
Afrikaans	Good Level	Occasional practice, Studied in school
Hebrew	Intermediary Level	Studied in school
Russian	Beginner	Studying alone

References

References available upon request.