

# Newt Fourie

Software Engineer

## Contact

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## Languages

Primary: English

Alternative: Afrikaans

## education

- 2014 Bachelor of Science Honours (Computer Science) The University of Johannesburg  
Majors: Information Security, Compiler Construction, Functional Programming, Data Communication, Ethics and Legal Aspects of IT, Systems Programming, Network Information Security and a 2 Module Year Project  
Graduation date: 2015
- 2011–2013 Bachelor of Science in Information Technology The University of Johannesburg  
Majors: Computer Science and Informatics  
Graduation date: 2014
- 2006–2010 Matric Parktown Boys' High School  
Subjects: English, Afrikaans, Mathematics, Physical Science, Information Technology, Accounting, Advanced Programme Mathematics

## work experience

- 2016–now Software Engineer Entelect Software - Client: Standard Bank  
Working on a data warehouse project. This project involves gathering data from 4 different source systems throughout the bank and centralising this data in order to report on it more efficiently. This project is making use of SQL Server, SSIS and .NET MVC Web Application for a front end display
- 2016 Software Engineer Entelect Software - Internal Projects  
Worked on our internal leave capture system, where by enhancements were made in order to show your current leave due to you (as last synced by the payroll system), as well as allow managers to allocate discretionary and study leave to employees. This allowed managers to more easily track discretionary and study leave, rather than having it openly "bookable". The website is a pure .NET MVC website and uses JQuery and Knock-outJs on the front end.
- 2016 Software Engineer Entelect Software - Client: Silica  
Worked on a system called QC Rejection Manager. This was a bespoke system to be used by Silica in order for administrators to manage their QC (Quality Check) rules. These rules helped the users determine if an investment into a certain product was valid - by checking a bunch of criteria. The aim of this system was to manage duplicate rules. We developed a Java application making use of a string similarity library to determine if rules were duplicated. The rules were stored in a MongoDB. Due to budget reasons, the system never went live.
- 2015–2016 Software Engineer Entelect Software - Client: Silica  
Worked in a team of continually changing size, varying from 2 to 4 members, on a new system to assist administrators in the processing and email generation (for liaising) of pre-retirement and post-retirement fund transfers. The requirements of the system were incomplete in the beginning and consistently changed. Initial estimate was 3 months with half the system requirements incomplete. We manage to complete the project in 5 months. I was assigned project lead for this system and in charge of liaising with the client to extend deadlines and gather outstanding requirements. After completion of the project maintenance was done for 6 months.

2015	Software Engineer	Entelect Software - Client: Silica
	Working in a team of 3 on web maintenance for the following clients: Prudential, Boutique Collective Investments, Collective Investments, Investment Solutions and Ashburton Unit Trust. Technologies used MVC Website and JQuery (and various JS libraries).	
2014	Informatics 3 Tutor	The University of Johannesburg
	Working as a student tutor to assist students studying Informatics 3A and 3B. Activities involved: explanation of code and programming concepts as well as code review	
2012–2014	Informatics 1 Tutor	The University of Johannesburg
	Working as a student tutor to assist students studying Informatics 1A and 1B. Activities involved: explanation of code and programming concepts as well as code review	
2013-2014	Temporary Software Developer	Biddcom Software
	Development aspects covered: asmx web service, WCF service, Android, MySQL, MS SQL Server, RESTful web service, parsing XML and JSON	
2013	Computer Science 2 Tutor	The University of Johannesburg
	Worked as a student tutor to assist students studying Computer Science 2A and 2B. Activities involved: explanation of code and programming concepts as well as code review	
2010	General Assistant	Biddcom Software
	Duties: wiring Ethernet cables, installing and configuring various software, and software testing	

## team experience

2016	Google Hash Code	Online Qualificaθon
	Participated in a team of 3 in an attempt to generate an algorithm to route drones from warehouse to customers in the most efficient way possible (within a 4 hour time limit). We scored in the top 800 of more than 17000 participants (maximum team size allowed was 4)	
2014	Discovery Hackathon	Johannesburg
	Worked in a team of 4 to develop a gamified running app. Users would be awarded points for successfully completing challenges and level up to unlock in challenges. Users could also participate in weekly challenges.	
2014	Ubiquitous Products and Services Innovation (UPSI)	The University of Johannesburg/Universidad EAFIT
	Worked in a team of 5 (consisting of three Colombian students and two South African students) to develop a safety assistance system, where riders of motorcycles cannot start the bike without wearing the helmet. The system will also detects if the biker has been in an accident and will then notify an emergency centre. System parts: C# ASP.NET website, Android app, Microsoft Azure web service and database, C# desktop application and the physical helmet with an accelerometer, gyroscope and an inertial measurement unit (IMU).	
2013	3 <sup>rd</sup> Year Informatics Project	The University of Johannesburg
	Worked in a team of 4 to develop an event management system. System parts: C# ASP.NET website and web service, Android app, and MySQL database	
2012	2 <sup>nd</sup> Year Informatics Project	The University of Johannesburg
	Worked in a team of 4 to develop an e-commerce website. System parts: VB ASP.NET website and MS SQL database	

## development experience (misc.)

2014	Bluetooth Development Developed an Android application with Bluetooth interaction between an Arduino and the Android device	The University of Johannesburg
2013	NFC Development Developed an Android application with NFC interaction to share contact details	The University of Johannesburg

## programming languages

The following is a list of languages that I have worked with in the past: C++, Java, Android API, C#, x86 Assembly language, ASP.NET, Visual Basic, JQuery, Delphi, MySQL, MongoDB, SQL Server, HTML. I am currently proficient in C#, JQuery, SQL Server, HTML.

## awards/competitions

2016	Google Code Jam Participated in the Google Code Jam 2016. Made it passed the qualification round and participated in Round 1B and 1C	Online Competition
2014	Imagine Cup Made it to the national finals (consisting of 12 teams) for Microsoft's Imagine Cup in 2014	The University of Johannesburg
2013	Projects Day 2013 1 <sup>st</sup> place among all 3 <sup>rd</sup> year projects	The University of Johannesburg
2013	Research Symposium 1 <sup>st</sup> place for presenting research on NFC and Bluetooth with a colleague	The University of Johannesburg
2012–2013	Certified Tutor Trained and employed as a tutor by the University of Johannesburg	The University of Johannesburg
2011–2013	Top Achiever Recognised as a top achiever by the Faculty of Science each year	The University of Johannesburg
2011–2013	Informatics Top Achiever Recognised as a 10 top achiever by the Academy of Computer Science and Software Engineering, each semester	The University of Johannesburg
2011–2013	Computer Science Top Achiever Recognised as a 10 top achiever by the Academy of Computer Science and Software Engineering, each year	The University of Johannesburg

## extra curricular

2013–Now	Golden Key International Honour Society Became a member of the Golden Key International Honour Society in 2013	The University of Johannesburg
2013–Now	UJenius at UJ UJenius member	The University of Johannesburg