

Tobias N Nteireho

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Available in NYC Metro and Chicagoland

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Education

Bachelor of Science in Electrical Engineering (Adv. Electronics and RF/Antennas), 6/08 from Drexel University, Philadelphia, PA

Experience

Blue Ponder, Chicago, IL
Owner/Writer/Full Stack/DevOps, 7/14 – Present

Advised potential clients on technical solutions to their business problems. Inquired about clients needs, captured their stories, and proposed and explained technical solutions to non-technical business owners. Researched, developed and practiced with Android development platform, software architecture through patterns and anti-patterns. Researched, developed, and practiced RESTful API development, OAUTH, OWASP best practices for secure webapp implementation. Researched, developed and practiced with pseudorandom number generators (both cryptographically secure and non-cryptographically secure), symmetric and asymmetric encryption, hash functions such as SHA family, MD5, and MD6, HMACs, password hashing/storage/key-derivation functions such as PBKDF2, bcrypt, and scrypt. Researched, developed, and practiced SQL databases through MySQL and postgres with best practices principles such as patterns and design with normal forms and injection mitigation with techniques such as parameterized queries. Researched, developed, and practiced with Cassandra, Mongo, and Redis NoSQL databases. Researched, developed, and practiced with Java, JavaScript, JQuery, AngularJS, C#, and AWS.

Motorola Solutions, Schaumburg IL
RF Engineer, 9/08- 7/14

Designed, built, and tested couplers, filters, medium power amplifiers, and power detectors for 100MHz to 1GHz in a cross-functional team including RF, digital, mechanical, and manufacturing engineers. Evaluated requirements for design and testing of high power transmitter and components. Tested linear and nonlinear amplifiers and radios under different modulations for compliance to internal spec and FCC and ETSI specs. Wrote LabVIEW code to automate tests. Wrote python and MATLAB code to automate analysis. Used ADS and CST for design and Cadence for final layout. Used oscilloscopes, spectrum analyzers, VNAs, VSAs for evaluation and troubleshooting of designs. Sourced and evaluated parts for designs. Designed physical and software simulated tests to troubleshoot unforeseen issues. Used Six Sigma to design for quality. Supported manufacturing efforts.

Technical Writing: Sole author of over 3 dozen formal and informal technical review documents measuring thousands of pages targeting audiences ranging from non-technical managers to system architects. Contributed to service manuals, architecture documents, and requirements documentation. Created rework documents. Created product reviews for parts.

Senior Design Project, Drexel University, Philadelphia, PA
Lead Systems Engineer/Lead Software Engineer, 9/07- 6/08

Used PSpice to design CMOS (5v) to mechanical (12V) control circuitry- H-Bridge and FET and BJT amplifiers with logic gates. Built, tested, and soldered these devices. Designed and implemented embedded software in C for Atmel Atmega169p AVR to control motors, valves, and instrumentation for optical white blood cell counter. Motor speed controlled with PWM. Used Visual Studio to develop client PC software in win32/C++ to interface with instrument with database. Designed portable power system. Team design consultant for main instrumentation, fluid system, structural systems, and optical systems. Built mechanical parts in machine shop with team. Used MATLAB, function generator, and mixed signal scope for analysis and design.

University of Pennsylvania, Philadelphia, PA
IT Tech Support/Consultant, 3/06 - 3/07

Performed first tier tech support and troubleshooting individually and in team. Repaired and debugged installations of windows, Linux, and Mac. Worked one on one with clients to solve problems. Deployed and transitioned University to the new wireless network, AirPennNet, through testing, documentation, and consulting. Developed and debugged in house applications using Perl and PHP.

Technical Writing: Wrote product reviews for various technologies and devices. Wrote and contributed to user manuals and technical manuals for the transition to new wireless network.

Guideworks/Comcast/TvGuide, Radnor, PA
Co-Op Software Engineer, 3/05 - 9/05

Used Visual Studio to develop MFC based multithreaded, real-time, serial port DCT diagnostic client. Developed Perl data aggregation application. Developed other test tools using Sockets, DirectX, and Visual Basic, and win32. Worked with team to develop tools to spec.

tDEC Freshman Design Project, Drexel University
Project Lead, 12/03 - 5/04

Directed a team of 4 others in the effort to design and present a standard form factor for laptop computers including dimensions, power and standard ports and interfaces based on extensive research of current and past needs and trends. Used AutoCAD for designs.

Yousif Family, Vienna, Virginia
Computer Science Tutor, 9/02 - 6/03

Prepared high school sophomore for AP Computer Science AB Exam through review of hashes, linked lists, trees, stacks, queues, sorts and searches, the student's source code and a reinforcement of style conventions of C++

First Objective Software, Alexandria, Virginia
Applications Developer, 3/00 - 6/02

Ported CMarkup XML library to Delphi from C++ and designed and developed solutions for Windows, DOS, Unix and variants, and Macintosh using C++, Delphi, MFC, wxWidgets

Skills

Code			APIs			Software		OS	H/W
SQL	JavaScript	Redis	STL	RESTful	Scipy	Eclipse	MS Office	Linux	VSA
C	HTML	Cassandra	Win32	OpenGL	Numpy	IntelliJ	Minitab	Windows	OScope
C++	CSS	Mongodb	libGDX	Twitter	curl	Premiere	Gimp	MacOS	MultiMeters
Java	Python	perl	Core Java	Junit	CMarkup	Cadence	AutoCAD	Android	VNA
C#	MATLAB		Android	Angular.js	Jersey	Agilent ADS	Photoshop	iOS	Spectrum Ana
PHP	LabVIEW		regex	J2EE/JSP		XCode	Git	AWS	Tuner

Volunteer Work

Lakeview Pantry	'14- Present	Chicago Cares	'14- Present
One Brick: Chicago	'11- Present	Alpha Phi Omega, National Service Fraternity, inc.	'04 - '08
Drexel University Circle K	'03 - '08	Drexel University TechServ	'03 - '08