

# Alexander Bell

New York  
USA

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**Objective:**     **Principal or Lead Engineer: Win/Web, Cloud, Data, AI/NLP**

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## Summary

STEM polymath holding PhD in Electrical and Computer Engineering, world-renowned scientist, engineer and innovator with over two decades of leading-edge engineering and hands-on managerial experience in diversified industrial, scientific and business environments. Highly creative and self-motivated, authored 37 hi-tech inventions in electronics and digital signal processing, developed variety of award-winning Windows, Web and Mobile applications, received multiple awards from leading technical trade publications. Pioneered variety of disruptive information technologies, including Java technology stack, Microsoft .NET framework, Azure Cloud computing, AI, ML, NLP, speech recognition and synthesis, GitHub Copilot pair programming, mobile apps development, rich internet applications and IoT. Early adopted and widely applied Agile and SDLC principles. Acquired essential Fintech knowledge and variety of practical skills pertinent to investment banking, market data, quantitative analysis, portfolio risk management and electronic trading IS. Recognized worldwide by engineering communities for his contribution to Open Source software knowledge base and best-practices. Active in major online IT engineering communities: StackOverflow, Codeproject, LinkedIn. Naturalized US Citizen, former immigrant-refugee, bilingual (en/ru).

## Notable Achievements

- 25+ years of IT, hi-tech and "Wall Street" Fintech experience
- Rated Top-5% on **Stackoverflow.com** ([profile link](#)); 500+ IT/software problems solved totaling 1.5M+views
- Honored a Legend title of **Codeproject.com** ([profile link](#)); credited for 40+ articles/tips totaling 4M+ views
- Pioneered AI NLP, Automatic Speech Recognition (ASR) and Speech Synthesis (TTS), Speech API, IVR
- Proactively adopted Microsoft GitHub Copilot and conducted AI-powered pair programming case study
- Pioneered Microsoft Azure Public Cloud development with active experience spans over a decade
- Achieved Microsoft Azure **AI-900, AZ-900, DP-900** Certifications
- Developed multiple apps for Windows Azure Developer Challenge 2013 ([article link](#))
- Developed several award-winning applications in App Innovation Contest (AIC-2012/13 by Intel Corp)
- Authored 30+ inventions in electronics, instrumentation and data/signal processing
- Received multiple "Best Design Idea" awards from EDN and Electronic Design Magazines
- Published 100+ innovative tech articles in Electronic and Computer Engineering domain

## Core Competencies and Skills

- OS and Platform: Windows, Linux, Android, Microsoft Azure Cloud, AWS, PCF/Tanzu
- Azure: App Service, Data, Storage and Compute Services, AI, DevOps, ARM, Cloud Shell CLI, Terraform
- CS: Algorithms, Data Structures, SOLID, DRY, UML, OOP, OOD, TDD, Parallel, Async, Multithreading
- AI: ML, NLP, Speech API, ASR, TTS, LLM, GitHub Copilot, Prompt Engineering, AI Pair Programming
- Languages: C#, Java, JavaScript, TypeScript, Python, VB, VBA, SQL, PowerShell, Bash
- Frameworks: Microsoft .NET 8, ASP.NET, WPF, OpenXML, jQuery, Bootstrap, Android Mobile SDK
- Data: RDBM, ETL, OLTP, OLAP, SQL Server, Oracle, SQLite, MySQL, Access, NoSQL, Hadoop, MongoDB
- Web: HTML5, CSS3, XML, JSON, RESTful, AJAX, Web API, Razor Page, MVC
- Microsoft: Office 365, Excel/VBA, Outlook, PowerPoint, Visio, Teams
- DevOps: Agile, Scrum, Kanban, SDLC, CI/CD, Automation, GitHub, GitLab, JIRA
- Testing: UAT, QAT, Integration and Unit Testing, NUnit, xUnit, Functional UI Testing, Selenium, WebDriver API
- IDE: Microsoft Visual Studio, IntelliJ IDE, Android Studio, Eclipse

## Work Experience

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### Senior Software Engineer, AVP

Wells Fargo

04/21 - Present

New York, NY

Major achievements, duties and responsibilities:

- Leading Microsoft Azure Cloud migration efforts, recognized corporate-wide for his notable contribution
- Achieved Microsoft Azure Cloud Certifications: **AI-900**, **AZ-900** and **DP-900**
- Developed and re-factored multiple Fintech apps utilizing Microsoft .NET 6/8 and Visual Studio 2022 IDE
- Developed a sophisticated Functional Test Automation framework centered on Open Source components
- Initiated migration to Microsoft Teams collaboration tools, implemented/maintained multiple Teams/Channels
- Proactively adopted Microsoft GitHub Copilot and conducted AI-powered pair programming case study
- Actively applied SDLC framework and Agile principles in Jira Scrum/Kanban collaborative practices

*DevOps: Cloud Computing, Microsoft Azure Cloud, App Service, Data and Storage Service, TFS/Tanzu, Terraform, Agile Scrum and Kanban, SDLC, Automation, CI/CD, TDD, xUnit, NUnit, HTML5, CSS3, NET 6/8, C#, ASP.NET, MVC, Razor Pages Web App, JavaScript, jQuery, AJAX, JSON, RESTfull, Web API, SQL Server, T-SQL, Oracle, ETL, SSIS, Power BI, JIRA, Confluence, GitHub, Selenium WebDriver, OpenXML, Visual Studio 2022, IntelliJ IDEA.*

### Founder and Principal Consultant

InfoSoft International Inc

07/1998 - 01/2021

New York, NY

Major achievements, duties and responsibilities:

- Founded hi-tech Company providing IT/Fintech consulting services to: JP Morgan Chase, Societe Generale, Marsh and McLennan, Ellington Management Group, Sandler Capital, The Rockport Group LLC, SkyStem LLC.
- Managed and contributed to DevOps projects in diversified geographically dispersed business environments.
- Early-adopted and applied SDLC and Agile principles/practices in multiple enterprise-level DevOps projects.
- Pioneered disruptive technologies, including: MS Azure Cloud, AI, NLP, Speech ASR/TTS, HTML5, CSS3.
- Made significant contribution to Open Source software and IT knowledge base.
- Developed variety of award-winning Win/Web/Cloud apps utilizing .NET/Azure Cloud technology stacks.
- Developed and published multiple Android Mobile educational and productivity apps.

*DevOps: Microsoft Azure Cloud, PCF/Tanzu, AWS, ASP.NET, Web API, AJAX, JSON, TPL, Multithreading, TDD, SQL Server, SSIS, SSAS, WPF, SQLite, Speech Technology, ASR/TTS, HTML5, CSS3, AWS, C#, Excel/VBA, Java, JavaScript, jQuery, Android, CI/CD, Gradle, Agile, Scrum Kanban, JIRA, Confluence, GitHub, BitBucket.*

### Lead Developer

SkyStem LLC, contract

09/2018 - 05/2019

New York, NY

Developed cloud based financial software including transactions monitoring, historical data analysis and reporting; maintained cloud CI/CD.

*DevOps: ASP.NET, Cloud Computing, SQL Server, SSIS, SSRS, OpenXML, EPPlus, GitHub, Shell scripting.*

### Principal Engineer/Architect

InfoSoft International Inc (internal projects)

05/2016 - 05/2021

New York, NY

Created Google Play Store account, developed and published a few Android Mobile educational/productivity apps.

*DevOps: Android OS, Android Studio, Java 8/11, RESTfull, JSON, GSON, JavaRx, Volley, Retrofit, SQLite*

### Lead Developer

The Rockport Group LLC, contract

01/2016 - 04/2016

New York, NY

Refactored Microsoft Excel Add-In focused on performance optimization, added enhancement features to Excel export reporting module, improved online documentation control and knowledge sharing.

*DevOps: Agile, Jira, Confluence .NET, C#, WPF, Excel, VBA, Windows DNA, Multithreading, CI/CD, Git, BitBucket.*

**Grant Proposal Writer/Principal Investigator****01/2009 - 01/2018**

Infosoft International Inc (internal projects)

New York, NY

Conducted R&D and submitted multiple grant funding proposals to the US National Science Foundation (NSF) on variety of innovative technologies primarily focused on Electronic Engineering, Digital Signal Processing and Information Technology.

**System Architect/Lead Developer****03/2009 - 05/2012**

Sandler Capital Management, contract

New York, NY

Developed investment portfolio management system containing: real-time PNL/Performance computation engine connected to market data feed via real-time streaming ETL, data aggregation/analytics OLAP, reporting engine connected to responsive Web and Mobile UI optimized for variety of form factors.

*DevOps: ASP.NET, Web API, AJAX, C#, JavaScript, SQL Server, MS Access, Excel, VBA, Market Data.*

**Senior Applications Developer****12/2007 - 07/2008**

Thomson Reuters Corporation

New York, NY

Took a lead in codebase refactoring of financial Quantitative Analytics Web API module, maintained a distributed version control; developed multi-threaded functional test framework focused on performance optimization. Adopted and applied SDLC framework and Agile principles, TDD, CI/CD automation; improved documentation control.

*DevOps: SDLC, Agile, ASP.NET, C#, Web API, SQL Server, T-SQL, SSIS, REST, TPL, SVN, PowerShell.*

**System Engineer****10/2005 - 05/2007**

Sandler Capital Management, contract

New York, NY

Developed web-based distributed financial portfolio management IS with its core components: real-time Market Data feed connector, PNL and KPI computation and reporting engine, authentication/authorization module, innovative speech-enhanced system health and operational monitoring module utilizing NLP/TTS.

*DevOps: ASP.NET, IIS, C#, VBA, HTML, JavaScript, SQL Server, ETL, WinAPI and shell scripting.*

**Lead Developer****08/2003 - 05/2005**

JP Morgan Chase IB, contract

New York, NY

Conducted business analysis, gathered requirement definition and outlined an architectural design of multi-tiered Alternative Assets Fund Risk Monitoring System (FRM). Developed and deployed all core components; added data reconciliation and risk metrics assessment software library and reporting engine.

*DevOps: C++, C#, Excel VBA, Pivot Tables, SQL Server, SSAS, SSIS, T-SQL, Access, Oracle, Market Data.*

**System Architect****08/2000 - 12/2002**

Sandler Capital Management, contract

New York, NY

Conducted business analysis, gathered requirement definition and outlined a multi-tiered (data abstraction layer, business intelligence and UI) real-time Investment Portfolio Management System architecture, including real-time Market Data Feed connector, PNL and KPI computational and reporting engine. Developed all core software components, tested and deployed entire system to the corporate intranet

*DevOps: Market Data (Reuters), ETL, OLAP, DDE, WinAPI, C++, Excel VBA, Access, Shell Scripting.*

**Technical Lead****01/1999 - 03/2000**

Societe Generale, contract

New York, NY

Took a hands-on lead and successfully completed enterprise-level project scanning/refactoring 400k+ software components to ensure Y2K compliance. Created and executed project strategy, performed capacity planning and coordinated geographically dispersed multi-team (30+ members) efforts, provided efficient knowledge sharing, collaborative activity supervision and reporting to C-Level corporate executives.

*DevOps: C++, VB, JavaScript, ASP, SQL Server, Oracle, MS Office, Access, Excel, VBA, Add-Ins*

**Lead Developer****07/1998 - 12/1998**

Marsh and McLennan, contract

New York, NY

Conducted business analysis and developed automated Insurance Claims Processing system comprised of 3-tier modular architecture; completed system testing and integration in prod environment.

*DevOps: WinAPI, Shell Scripting, MS Access, VBA, ActiveX, Excel Add-In.*

**Sr. System Engineer****01/1998 - 06/1998**

Banc of America Montgomery Securities

New York, NY

Developed financial securities automated trading and real-time transactions monitoring software components including data analytics API comprised of ETL, data filtering, PNL computation and aggregation module, and a web-based reporting GUI.

*DevOps: SQL Server, SSIS, Sybase, DB2, MS Access, VB, VBA, C++, Perl, Windows Shell Scripting*

**Lead Software Developer/Architect****07/1997 - 11/1997**

J.P. Morgan, contract

New York, NY

Refactored consolidated Daily Risk Report system implementing 3-tier architecture; developed core software components: Data Layer (MS Access), middleware (Excel Add-In) and Front End (Excel/VBA).

*DevOps: Win32, COM, MS Access, Excel, SQL, VBA, Client-Server, Windows Shell Scripting*

**Lead Software Developer****01/1997 - 07/1997**

Ellington Management Group, contract

Old Greenwich, CT

Conducted analysis and gathered business requirements for fixed income Investment Portfolio Management IS. Developed a distributed IS including ETL data aggregation, analytical engine and PNL computation software modules. Tested and deployed IS to the corporate intranet.

*DevOps: Microsoft Access, Excel, VBA, Windows Shell Scripting*

**Engineering Project Manager****05/1994 - 12/1996**

Standard Motor Products

New York, NY

Developed variety of automotive barometric and manifold air pressure sensors (Ford, Lincoln, Chrysler, Honda aftermarkets) utilizing both capacitive and strain gauge technology, performed computer modeling and simulation. Initiated and developed PC-based SCADA for automotive sensors testing and QA, implemented enterprise-level data sharing information system. Evaluated and adopted Java programming language for engineering practice.

*DevOps: DSP, PSPICE, SCADA, LabView, OrCAD, P-CAD, C++, Java, Microsoft Excel, Access VBA.*

**Lead Project Engineer****02/1993 - 03/1994**

Science Instruments Co

Baltimore, MD

Developed portable biomedical instrumentation (ECG, EEG) centered on low-noise analog and mixed-signal electronic engineering, PC-based data acquisition, schematic capture CAD. Developed multiple computer-based training applications (CBT). Published multiple award-winning articles in leading electronic design trade publications.

*DevOps: Microsoft DOS, Windows, Word, Excel, ADC, DAC, Analog Electronic Design, DSP, CAD.*

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**Education and Certification**

- **PhD** in Electrical Engineering and IT from Moscow Power Engineering Institute (MPEI), Russian Federation
- **PMP** (in progress) from Project Management Institute (PMI), USA
- Microsoft Azure Cloud AI-900: [Microsoft Certified: Azure AI Fundamentals](#)
- Microsoft Azure Cloud AZ-900: [Microsoft Certified: Azure Fundamentals](#) [\(Credly Badge\)](#)
- Microsoft Azure Cloud DP-900: [Microsoft Certified: Azure Data Fundamentals](#) [\(Credly Badge\)](#)