# **John Fitzpatrick**

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# Summary

Seasoned developer with experience in analysis, system administration, and project management. A generalist who can pull together different technologies for effective solutions. Comfortable with Microsoft technologies and open source tools.

# **Objective**

Visualize source code to allow developers, architects, and managers greater understanding of their systems.

# Technical Skills

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| --- | --- |
| Languages | C#, Visual C++, C++/STL, C, Java, Visual Basic |
| IDE packages | Microsoft Visual Studio (2010, 2008, 2005 and 6) |
| Scripting languages | Perl, Ruby, DOS batch files, Linux bash scripts |
| Language support tools | DevPartner Studio, PC-Lint |
| Web servers and languages | Apache, HTML, CSS, PHP |
| Databases | Microsoft Access, MySQL |
| Version control systems | Microsoft TFS and SourceSafe, Serena PVCS Version Manager, Subversion, Git |
| Operating systems | Windows (7, Vista, XP), Linux (Ubuntu, SuSE, Debian) |
| Office suites | Microsoft Office, Open Office, Google Docs, Libre Office |
| Other | XML, Microsoft Project, Microsoft Visio, GIMP, GraphViz, doxygen, GNU tools |

# Professional Experience

## Open Systems Technologies

### Contract support for federal agency – 2011 to present

Technical advisor for team of economists that used economic models and budget projection programs.

### Responsibilities

* Convert desktop applications to web and mobile technologies
* Set technical direction for the team
* Provide guidance for tools and techniques
* Maintain and simplify existing code
* Share knowledge and guide other members of the team

### Accomplishments

* Enhanced existing systems
  + Converted budget models from Windows/desktop to web applications
  + Ported code from C++ to C#/.NET
  + Improved readability of source code to allow for review by subject matter experts
  + Re-organized source code to isolate business logic
* Automated processes
  + Created scripts to extract text from HTML and re-format for publication
  + Built test frameworks for in-house software

## Prism

### Contract support for federal agency – 2009 to 2011

Technical advisor for team of economists that used economic models and budget projection programs.

### Responsibilities

* Set technical direction for the team, proving guidance for tools and techniques
* Automate processes for builds and testing
* Maintain and simplify existing code
* Share knowledge and guide other members of the team

### Accomplishments

* Automated processes
  + Created scripts to analyze code and generate class reference diagrams (Perl, Visio)
  + Created scripts for unattended builds and automated tests (DOS CMD scripts)
* Reviewed technology
  + Evaluated Matlab and Octave for use within the branch
  + Migrated source control from Visual SourceSafe to Team Foundation Server (TFS)
* Enhanced existing systems
  + Reverse-engineered budget models and converted from C++ to C#/.NET
  + Improved readability of source code to allow for review by subject matter experts (non-programmers)
  + Reduced code by 60% (from 150,000 SLOC to 50,000 SLOC)
  + Extended functionality to read and write new formats for Microsoft Excel

## Freelance work

### Independent contractor – 2009 to present

Technical consultant, developer, web designer, and system administrator.

* Installed and configured web servers (Linux, Apache, PHP, MySQL)
* Designed and implemented web site for source code statistics (HTML, CSS, PHP, MySQL, XML, RESTful)
* Designed prototype for international web portal (HTML, CSS, PHP, MySQL, PHPmotion)
* Installed and administered version control systems (Subversion and Git)
* Installed and configured PCs (Windows 7 and Ubuntu Linux) and servers (Linux with NFS, Samba, FTP)
* Created utility to visualize web site links (Ruby, GraphViz)

## United Parcel Service

### Lead Technical Specialist – 2003 to 2009

Developer/analyst/architect on a large team that maintained, enhanced, and supported a large C++/C# application

* Administered and improved automated build system
  + Converted custom build system from Java to C#; reduced code by 80% (C#/.NET, Java, XML)
  + Created control system for coordinating automated jobs on multiple PCs (C++/MFC, DOS scripts, GNU tools)
  + Administered production and test environments (PVCS, DOS scripts)
* Analyzed source code and summarized size, changed, and defects
  + Designed a system to collect metrics on source code, including LOC, SLOC, and complexity (C++/MFC, Perl)
  + Created a system to parse source code and generate diagrams of the internal design (C++, C#, Perl, GraphViz)
* Administered shared resources
  + Developed tools to monitor disk usage; collected, analyzed, and reported usage trends (Perl, GNU tools)
  + Administered test subnet, installing and configuring web servers and PCs (Linux, Windows, Apache)
* Administered version control systems
  + Implemented and administered Serena PVCS Version Manager
  + Converted archives from SourceSafe to PVCS (DOS scripts, C++/MFC)
* Created tools to help others on the team
  + Created tools to measure size, changes, and translation effort of help text (Perl)
  + Created utility to compile programs and run automated tests (Perl)
  + Created utilities for ETL (extract-transform-load) with MS-Access and ODBC (C++/MFC, ADO, SQL)
  + Created a simple report writer generator; used to create summary and reformatting programs (Perl)

### Lead Programmer Analyst – 2000 to 2003

Team lead for a medium-size C++ library (“RAVE”) that ran under Windows and Solaris.

* Created project plans, assigned work, reviewed progress, held performance reviews
* Created “mini-build” driver to compile programs, run automated tests, and report results (C++/MFC)
* Developed supplemental class library for MFC (C++/MFC)
* Created series of utilities to assist batch files (C++/MFC)
* Mentored non-programmers into development positions (C++/MFC)

### Senior QA Analyst – 1998 to 2000

Team lead for test team (6 individuals). The team ran tests and recorded results in a custom test-tracking tool.

* Planned tests and assigned work
* Reviewed functional requirements for testability, provided feedback to requirements team
* Organized test cases for improved test coverage and efficient use of team personnel

### Senior Programmer Analyst – 1996 to 1998

Team member on a C++ Windows application (“UPS Online Professional”)

* Participated in the “in-sourcing” effort, bringing the development into UPS
* Contributed to maintenance, re-design, enhancements, and testing. (C++, MFC, Windows SDK)
* Re-wrote the setup program for the application. (C, Windows SDK)

### Programmer/Analyst – 1990 to 1996

Team member on small C applications (“Maxiship” and “Customer Counter”)

* Reviewed requirements and translated into design documents
* Participated in enhancement, maintenance, testing, and support efforts
* Created test scripts and a series of structured tests
* Held code reviews
* Introduced PC-lint and static analysis to the review process

## ***Morris Savings Bank***

### PC Lead – 1987 to 1990

Supervised the PC support team (3 individuals) The team installed PC hardware and software and trained and supported users at all levels of the organization.

* Planned projects and budgets, held performance reviews
* Created training program for “Information Specialists”, non-technical members of business teams

### PC Analyst – 1984 to 1987

Member of the PC support team.

* Installed PC hardware and software, trained and supported bank employees
* Created log-in and menu system in MS-DOS (DOS scripts)
* Wrote program to generate data conversion programs (C)
* Redesigned loan redline reporting system, creating menus and help screens (dBase II)
* Built an Executive Support System which summarized bank operation activities

# Education

## ***Stevens Institute of Technology***

B.S. in Systems Planning and Management, 1984