# Paul M. Parks – Software Developer & Leader

 **Location:** Singapore

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**LinkedIn Profile:** <https://linkedin.com/in/paulmooreparks/>

**GitHub:** <https://github.com/paulmooreparks/>

## What makes me unique

* Over 34 years of professional software-development experience across a broad spectrum of languages, platforms, libraries, and technologies
* Experience leading teams and working with customers across countries, cultures, and time zones — An eye for continuous improvement of technologies and processes
* A talent for explaining technical matters to a non-technical audience
* A lifelong learner who is continuously exploring and experimenting with new technologies, new approaches, and new experiences

## Core Skills

**Leadership:** Mentorship and management of diverse teams across many countries, cultures, and time zones

**Global Perspective:** Experience with colleagues and customers across various countries and cultures.

**Customer Interaction:** Engagement with clients for tailored services and satisfaction during solution delivery and support; Skilled at translating complex technical matters for non-technical audiences (and vice-versa).

**Software Delivery:** Delivery of mission-critical software to substantial clients; adherence to quality and schedule

**Full Life-Cycle Management:** Proficiency in software project management from inception to support, with classic project management, Kanban/Lean, Scrum

**Multi-faceted Development:** Various platforms (Windows, Linux, Unix), application domains (desktop, server, command-line, web) and languages (C#, C++, C, JavaScript, TypeScript, etc.).

## Technical Skills

**Current Languages, Libraries, and Tools:** .NET 7, REST APIs, HTML, Angular, Entity Framework, C#, JavaScript, TypeScript, Intent Architect, Microsoft SQL Server, Microsoft Azure, Docker, PowerShell, Visual Studio 2022, Visual Studio Code, Full-stack Development

**Software Domains**: Web sites and applications, Web APIs (REST, SOAP), Graphical desktop applications, Self-service kiosks, Point-of-sale systems, Server applications and services, Command-line utilities, Native libraries and APIs

**Development Platforms:** Windows (desktop/workstation from 3.0 through Windows 11), Windows Server (2003, 2008), Windows Embedded (POSReady 2009, Windows CE 6.0), Unix (System V Release 4, Sun), Linux (various distributions from Slackware to current day), DOS (IBM, MS)

**Programming Languages:** C++ (through C++20), C (ANSI C ‘89), C# (1 through 11), Assembly (6502, 8086, x86, custom), JavaScript, TypeScript, shell (PowerShell, csh, ksh, bash, DOS), Java, LISP, COBOL, Software AG Natural, Basic (Quick Basic, Microsoft Professional Basic, Visual Basic, VB.NET), Bytecode interpreters

**Frameworks & Technologies:** .NET 7, Angular, Microsoft Azure, Docker, Entity Framework, .NET Razor Pages, ASP.NET, XAML, Windows Presentation Foundation (WPF), .NET Windows Forms (WinForms), .NET/Windows Interop, .NET Framework (1 through 4.7), HTML (through HTML5), HTTP (1.0, 1,1), XML, CSS, ASP, WordPress, REST, SOAP, XSLT, WAP, XML-RPC, Java Servlet Pages (JSP), ESXi, VMWare Workstation, Active Template Library (ATL), Network Sockets, Common Object Model (COM), MFC, Windows API (Windows 3.0 through Win32)

## Citizenship and Visa Status

* United States citizen by birth
* Singapore Permanent Resident visa status since March 2022
* Currently reside in Singapore (since October 2017)

## Professional Experience

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| Freelance Developer | June 2023 to present |
| Parks Computing Services | Singapore |

* Custom software development and consulting.
* Current project is as a senior developer working with a team at [Agile Bridge](https://www2.agilebridge.co.za/) on the Abacus product, which is a web-service calculation engine used for financial computations in the automotive industry.

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| Corporate Director and Program Manager | December 2022 to present |
| Sentience Solutions Pte. Ltd | Singapore |

* Oversees and coordinates FinTech projects for the banking industry.

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| Customer Success Manager | August 2022 to November 2022 |
| CloudCover Pte. Ltd. | Singapore |

* Responsible for ensuring Code Pipes customers are successful at meeting their goals using the product. Advocated internally for the customer and their needs.

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| Senior Manager | September 2021 to August 2022 |
| Diebold Nixdorf Singapore Pte. Ltd. | Singapore |

* Led a team of retail business analysts based in various cities across the Asia-Pacific region. The business analysts work directly with Diebold-Nixdorf’s retail customers to specify solutions in the grocery, fuel, convenience, specialty, and fashion retail sectors.
* Led a team of software engineers based in Singapore developing and maintaining Diebold-Nixdorf’s TP.Linux retail point-of-sale application.
* Active participant in the APAC Retail Professional Services management team, reporting to the director of APAC Retail Professional Services.

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| Technical Consulting Senior Manager | October 2017 to July 2021 |
| NCR Asia Pacific Pte. Ltd. | Singapore |

* Consulted on multiple retail projects across the Southeast Asia sub-region from pre-sales through delivery.
* Liaised between NCR’s software engineering teams and in-region professional-services teams working directly with the customer to ensure that customer solutions were delivered accurately and in a timely manner.
* Worked directly with customers in the APAC region to identify and resolve issues.

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| Senior Software Engineer | March 2016 to October 2017 |
| NCR Corporation | Atlanta, Georgia, USA |

* Led local and offshore development teams in the design, development, testing, and delivery of self-checkout and self-service kiosk software for the retail and postal industries, including NCR’s largest retail account and for a national post office service.
* Worked directly with customers to gather, understand, and clarify requirements.
* Created estimates and project plans for software development projects.
* Provided mentoring and consultation to development teams.

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| Senior Software Engineer | January 2016 to March 2016 |
| Bsquare Corporation | Atlanta, Georgia, USA |

* Worked on-site at Coca-Cola designing and developing features for the Coca-Cola Freestyle beverage dispenser.

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| Software Technical Lead | January 2003 to December 2015 |
| SYSGENS, Inc. | Atlanta, Georgia, USA |

* While contracted to NCR Corporation, led local and offshore development teams in the design, development, testing, and delivery of point-of-sale, self-checkout, and self-service kiosk software.
* Designed, developed, maintained, documented, and provided training for key software components and APIs.

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| Application Developer | March 2002 to December 2002 |
| Vorsite, Inc. | Seattle, Washington, USA |

* Developed intranet web applications (C#, .NET) and native Windows services and utilities (C++) for Microsoft, a Vorsite contract customer and partner.

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| Senior Design Engineer | January 2001 to November 2001 |
| Intava, Inc. | Bellevue, Washington, USA |

* Designed and implemented server products for the wireless Internet industry.
* Implemented HTTP specification in Java to provide a web-application server platform focused on mobile phone development.
* Implemented XML-RPC specification in Java to support integration of Java server code with multiple web servers via an RPC interface.

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| President | January 2000 to December 2000 |
| Parks Computing Services, Inc. | Atlanta, Georgia, USA |

* Developed a Java servlet system to separate complex JavaScript validation logic from presentation markup, as well as to ease cross-browser web page development, via server-side processing of XHTML web pages.
* Created Java servlet to generate report data selection forms for browser-based application.

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| Software Engineer | February 1994 to December 1999 |
| SYSGENS, Inc. | Atlanta, Georgia, USA |

* While contracted to NCR Corporation, developed software for NCR’s Advanced Checkout Solution (ACS) grocery point-of-sale systems, both platform and application.
* Designed and developed a new user interface for NCR’s ACS (Advanced Checkout Solution) to support the NCR 7450 DynaKey.

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| Developer I | February 1993 to January 1994 |
| PC DOCS, Inc. | Tallahassee, Florida, USA |

* Designed and developed features for a DOS-based document-management system using the C programming language.
* Served as technical liaison to customer-support department and provided remote and on-site technical support.

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| Computer Programmer Analyst | December 1989 to January 1993 |
| Executive Office of the Governor (Florida) | Tallahassee, Florida, USA |

* Designed and developed features for the Legislative Appropriations System/Planning and Budgeting Subsystem (LAS/PBS), a mainframe-based system written in Adabas Natural and COBOL.
* Worked in the Personal Computer Support unit developing and maintaining PC-to-mainframe data transfer utilities in Microsoft Professional BASIC to create Lotus spreadsheets from mainframe-resident state budget data.
* Developed a character-based, windowed user interface library for general use in applications.

## Volunteer Experience

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| IT Management, Web Design, Digital Marketing | April 2021 to present |
| Padma Jairam – Counselling Psychologist | Singapore |

* Designed and maintained web site and web content for Padma Jairam - Counselling Psychologist, a psychotherapy practice that began serving clients in June 2021 (<https://padmajairam.com>). Worked with owner to define digital marketing strategy, then executed that strategy to build a client base. Achieved a full schedule of clients by the first week of June 2021.
* Set up and managed IT resources for the business, including Microsoft 365, cloud tools such as OneDrive and SharePoint, and client relationship management tools (CRM).

## A Selection of Personal Projects

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| Sudoku | September 2023 to present |
| <https://parkscomputing.com/page/sudoku> |  |

This is a web implementation of the game Sudoku implemented solely with HTML, CSS, and JavaScript. It also implements an editor for creating or modifying Sudoku game boards. As the board is edited, the URL is updated to reflect the current state of the board, so that sharing new boards is as simple as sharing the URL. Game play is recorded the same way, allowing even in-progress games be shared or saved, complete with notes. Each modification to the board is added to the browser history, thus allowing the player to undo and redo moves by moving backward or forward in the browser history.

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| Personal Web Site | November 2022 to present |
| <https://parkscomputing.com/><https://github.com/paulmooreparks/parkscomputing> |  |

My personal/freelancing web site was previously hosted on WordPress, but this was not sufficient for my needs and interests. I wanted to be able to edit raw HTML and try various web technologies on individual pages, which was difficult to do with WordPress. I wrote my own web site engine with ASP.NET Razor Pages on .NET 7. The site is hosted on Azure Web Services as a containerized application (Docker). I am currently adding the ability for readers to leave comments on pages. This feature is implemented as a RESTful web service hosted on Azure (containerized), with the comments stored in an Azure SQL Server database. I am extending the site engine to retrieve and display comments as well as accept new comments, and I am making a separate application to notify me of new comments so that I can approve or reject them.

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| Maize Virtual CPU | March 2020 to present |
| <https://github.com/paulmooreparks/Maize> |  |

This project implements a 64-bit virtual CPU called "Maize," which is a new implementation of an idea that began in the "Tortilla" project (mentioned below). See the file [README.md](https://github.com/paulmooreparks/Maize/blob/master/README.md) file on GitHub for more details on the Maize CPU assembly language and the simple operating system that runs on it.

The near-term goal is to implement a set of devices to bridge from the virtual CPU environment to the host machine, create a "BIOS" layer above the virtual devices, implement a simple OS and a subset of Unix/Linux system calls (interrupt $80), and finally port a C/C++ compiler (likely Clang or GCC) that will generate Maize machine code.

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| Set-Associative Cache in C# | July 2020 to December 2022 |
| <https://github.com/paulmooreparks/SetAssociativeCache> |  |

A C# implementation of a set-associative cache with multiple cache-replacement policies, such as least-frequently used, least-recently used, or most-recently used.

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| Conway’s Game of Life in JavaScript | November 2015 |
| <https://www.parkscomputing.com/webapps/conways-game-of-life/> |  |

An example of how to write high-performance JavaScript code using the HTML5 canvas element to implement Conway's Game of Life, which is demonstration of cellular automata simulating living organisms.

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| Dragsens, a Console-based Drag Sensitivity Utility | November 2015 |
| <https://www.parkscomputing.com/applications/dragsens/> |  |

A simple utility that allows users to change the number of pixels the mouse has to travel before a drag operation is initiated. Used by private users and by systems administrators to prevent accidental drag-and-drop operations.

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| EAN-13 Barcode Generator in JavaScript | 2015 |
| [https://www.parkscomputing.com/applications/barcode-generator/](https://www.parkscomputing.com/applications/barcode-generator?code=0724171484086&desc=Jammie%20Dodgers)  |  |

A web page that accepts HTTP GET parameters on the URL line and outputs an EAN-13 barcode generated via JavaScript and HTML DOM.

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| Pbrain Language Interpreter and Compiler | September 2004 |
| <https://www.parkscomputing.com/applications/pbrain/> |  |

The pbrain programming language is an extension I made to the [Brainf\*\*k](http://www.muppetlabs.com/~breadbox/bf/) programming language that adds the ability to define and call procedures. Site linked above has an interpreter implemented in C++ and a .NET compiler implemented in C#.