

# BRUCE HODGE

P.O. Box 428, Greenfield Center, New York 12833 / [bruce.hodge54@gmail.com](mailto:bruce.hodge54@gmail.com)

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## Experienced Software & Hardware Engineer/Entrepreneur/Inventor

*Object-Oriented Analysis, Design and Development, Relational Database Systems, Company Founder/Chief Technology Officer*

- Creative software engineer with years of programming experience in both high level and low level languages; experience in the full stack software development cycle through customizable solutions
  - Creative hardware engineer with years of board designing experience in both analog and digital designs; experience in the full software development cycle through customizable solutions
  - Expert in advanced network protocols and implementations, including proficiencies with analyzers, scopes and diagnostic equipment for advanced applications.
  - Excellent in innovation and concept development, design and troubleshooting skills with the ability to analyze code and engineer relevant, productive and responsive solutions.
  - Company Founder & Business Owner with experience working in start-ups through established small businesses in a leadership and technological role.
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## Technical Tools/Skills

Software: C, C++, C#, ASM, ASP, VB.Net, JavaScript, Perl, Java, PHP5, JQuery, python, Node.JS. IDEs: Visual Studio, GCC, G++

Hardware: ARM, Atmel, Xilinx. IDEs: CrossWorks, CodeWarrior, Atmel Studio, LabVIEW, OrCAD, Ki CAD, AutoCAD. Debuggers: Atmel-ICE, Dragon

Operating Systems/db: LINUX, DOS, and WINDOWS. Databases: Sybase, Oracle, MySQL, SQLite, and SqlServer

## Professional Experience

President & CTO, 1/2018 – Tech Valley IP, Greenfield, NY

Designed advanced LabVIEW acquisition system to sample conductive ink resistance in real time. Designed a current injection technique to solve customers' issue with specific type of product. Also wrote python simulation program to model thermal issues in proposed products.

Senior Software Engineer, 6/2017 – 12/2017 – [INTERNET MARKETING NINJAS](#), Clifton Park, NY

Developed SEO tools to track social metrics/signals for clients. Developing tools in PHP based MVC framework that uses twitter, Facebook, Google+, and Instagram REST API's.

Senior Developer, 7/2015 to 4/2017 – [InfoEd Global](#) Albany, NY

Full Stack Development of a global grant search engine application in ASP, VB.net, C#, XML, XSD, XSLT, MVC and Entity Frameworks, Oracle, SQL Server, and SVN version control. Developing software that is used by millions of people at universities & research centers across the U.S. and globally. Working individually and with my co-developers to design and code web-based applications according to U.S. Government and customer standards/protocols.

President & Chief Technology Officer, 1/2003 to 6/2015 – [TECH VALLEY TECHNOLOGIES](#) (TVT), Wilton, NY

Founder of a veteran-owned small business that focuses on research & development through manufacturing and fulfillment of targets and training devices for the U.S. Military, Law Enforcement and Shooting Sports.

- Invented and designed systems from ground up including functional specification, mechanical designs, circuit board designs, coded software, firmware, communication protocol, C# GUI clients, and mobile apps.
- Created circuit boards, programmed embedded controllers, programmed servo control systems, and designed mechanical drive mechanism.
- Created 3D AutoCAD models of robotic target system and created working prototype that was functionally tested at Fort McCoy.

Senior Software Engineer/Consultant, 1/12 to 5/2015 – [INTERNET MARKETING NINJAS](#), Clifton Park, NY

Developed SEO software applications to interlink websites

- Created web crawlers for high-end national ranking customers that interlinked pages and a dynamic real-time content editor with built in keyword suggestion tool also developed internal tools for automating key business functions.
- Work directly for the Company Founder to identify problems and develop software solutions to positively impact overall business performance.

President & CTO, 7/2001 to 1/2003 – DYNASCRIP TECHNOLOGIES, Greenfield Center, NY

Founder of this technology company (working with the [Rensselaer Polytechnic Business Incubator](#) in Troy, NY)

- Developed and patented a wireless ultra-thin client & server side programming language technology (DynaScript) for developing applications on cell phones and personal devices. Designed and patented syntax and interpreter.

Senior Information Technology Engineer, 8/1999 to 3/2001 – [CISCO SYSTEMS](#), San Jose, CA

- Designed intranet and internet applications to create interactive web pages with dynamic content
- Designed the Cisco Systems “Hot Jobs” website
- Designed the Cisco Systems Benefits Call Tracking System
- Full-time telecommute positions

Senior Software/Hardware Engineer, 9/1992 to 8/1999 - [SYNNEX INFORMATION TECHNOLOGIES](#), [3COM](#), [DIVICOM](#), [SYNOPTICS](#) – CA

- Synnex : Designed and programmed interactive website that allowed user to configure their computer and validated required resources in real-time as they built it. System would generate build ticket for the production floor.
- 3Com : (Consultant) Design a LabVIEW application that would measure the radiation emitted by 24 port Ethernet hub using an antenna array and a GPIO controlled Spectrum Analyzer.
- Divicom : Was on the design team that built a real-time video compression system.
- Synoptics : Worked with Bob Smith in developing the infamous CAT5 cable system (Patent #[5,321,372](#) issued on 6/14/1994).

Internship Experience , 7/1991 to 9/1992 - [APPLE](#), [MIPS](#) COMPUTER SYSTEMS– CA

- Apple : (Internship) Worked on the [Newton](#) project designed an ingenious analog technique to determine display's active pixel count.
- Mips : (Internship) Wrote diagnostic test software for SCSI hard drives.

Electronic Engineering Technician, 7/1982 to 1/1991 - [NORTHROP CORPORATION](#), Newbury Park, CA - \*SECRET CLEARANCE\*

- (Secret Clearance)
- Designed and programmed Tacit Rainbow anti-radar drone ATE (Automated Test & Evaluation) system.
- Telemetry technician for the drone. Programmed the telemetry acquisition systems. Designed and programmed the first ever visual telemetry system by feeding encrypted telemetry information into a real-time graphic rendering model on a Silicon Graphics Computer.
- (Awarded outstanding individual award in 1991)

## EDUCATION

[California Polytechnic State University](#) – San Luis Obispo, CA

Bachelor of Science in [Computer Engineering](#) (BSCPE), 3/94

Member of [Delta Sigma Phi](#) Fraternity and [Tau Beta Pi](#) and [Eta Kappa Nu](#) (National Honor Societies)

[Ventura College](#) – Ventura, CA

Associates of Science in Electronic Engineering Technology, 6/82

Member of [Alpha Gamma Sigma](#) (National Honor Society)

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## Military Experience & Volunteering

Military Service – Fort Bragg, NC

[U.S. Army HHC 3rd BDE 82nd Airborne](#)

Radio Repairman Senior (Honorable Discharge)

Vietnam Era Veteran

First Robotics mentor at Saratoga High School

Volunteer at [Northway Church](#) Production Team as camera man

Volunteer for Firecracker 4 Road Race, Saratoga Springs, New York

## US Patents Issued

[8,985,585](#) Thermal target system      [8,947,108](#) Precision Target Methods and Apparatus      [8,925,925](#) Target System Methods and Apparatus

[8,862,431](#) Method and Apparatus for Determining and Retrieving Positional Information      [8,112,435](#) System and Method for Modifying Internet Traffic and Controlling Search Responses      [7,862,045](#) Method and Apparatus for Determining and Retrieving Positional Information      [7,539,973](#) Object Type

Declaration prefix syntax (DynaScript Language)      [7,207,566](#) Method and Apparatus for Determining and Retrieving Positional Information

[6,715,141](#) Multiphase Single Pass Interpreter (DynaScript Language)      [6,678,745](#) Dynamic Object Synthesis with Automatic Late Binding (DynaScript Language)

[5,516,113](#) Resistive Matrix Targeting System      [4,984,740](#) Water sprinkler with variable stream-distance adjustment