

# BARRETT D. OTTE

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<https://github.com/barrettotte>

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## SKILLS

**Main:** C#, Java, Python, ColdFusion, C/C++, JavaScript, HTML/CSS, TypeScript, Node, Ruby, PowerShell

**Exposure:** Batch Script, Shell, Lua, Groovy, XSLT, Assembly x86, VHDL, RPGLE, CL, DDS

**Database:** T-SQL, DB2, MongoDB, PostgreSQL, Redis

**Framework:** Angular, .NET core, Entity, Spring Boot, JBoss, Express

**Tools:** Git, SVN, Gradle, Ant, Maven, Docker, GitLab CI/CD, Jenkins CI, Jira, Confluence, Nexus, Vim, LaTeX

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## PROJECTS

**Terrain Generation Self Study** - Using perlin noise to generate terrain.

[C#, Unity Engine]

- Located at <https://github.com/barrettotte/Terrain-Generation-Study>
- Terrain chunk and procedural octahedral sphere generation using threading and delegates.
- LOD enabled terrain chunk scrolling using circular buffer data structure and queue.

**SQL Unit POC** - A POC MSSQL unit testing framework with Python and T-SQL

[Python, T-SQL]

- Located at <https://github.com/barrettotte/SQL-UNIT-POC>
- Directory/file driven unit tests using T-SQL and JSON to compare expected vs actual
- Leverages transactions and dynamic SQL to safely run SQL tests

**Genshi BASIC** - Interpreter for my first programming language

[Python, BASIC]

- Located at <https://github.com/barrettotte/GenshiBASIC-Interpreter>
- Lexer, parser, and interpreter for Genshi BASIC (an odd dialect of BASIC)
- Fundamentals of programming language design, recursive descent parsing, and AST's.

**Subarashii-CPU** - Homebrew 8-bit RISC CPU implmented in VHDL and breadboards

[VHDL, Assembly]

**Population Genetics Simulation** - Simulate mocked DNA in organisms across n generations.

[Python]

**Assembly(x86) HTTP Server** - Use system calls and sockets to serve a web page.

[NASM Assembly]

**Anilist Ruby** - API Wrapper over Anilist's GraphQL API using metaprogramming

[Ruby, GraphQL]

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## EDUCATION

University of Maryland University College Graduate 2018: **Computer Science B.S. Cyber Security Minor**

Data Structures and Algorithms, Network Security, Software Engineering, Ethical Hacking, Concurrent Programming, Algorithm Analysis/Design, Computer Architecture, Database Admin.

Towson University 2015-2016:

Calculus-based Statistics, Linear Algebra, Graph Theory, Abstract Algebra, and general coursework

Harford Community College Graduate 2015: **Computer Science A.S.**

Vector and Integral Calculus, Networking, Assembly(x86), Discrete Mathematics, C/C++, Java

North Harford High School Graduate 2014: **Computer Science/Computer Information Systems Track**

Maryland Scholar, Computer Science, Physics, C++ Programming, Marketing, Java Programming

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## WORK HISTORY

**Goodville Mutual Casualty Company**

*Software Developer*

**New Holland, PA**

June 2018 - Current

- Mainly worked with Java, ColdFusion, JavaScript, Angular, T-SQL, XSLT, SASS, Spring Boot, Drools, PowerShell, and Jenkins CI.
- Exposure to Groovy, JBPM, Gradle, Maven, Ant, DB2, RPGLE, CL, and IBMi system.
- Practiced Agile development with scrum and the Atlassian suite (Jira, Confluence, Bitbucket, FishEye).
- Modernized legacy ColdFusion and Java code to work towards microservices using Spring Boot and Angular.
- Worked with small team to automate commercial umbrella line of business.
- Given the opportunity and support to learn IBMi system, RPGLE, DDS, and CL.