CSC 344

Programming Languages I Might Like To Learn

Learning Abstract

This assignment presents a short text for each of 6 programming languages that I might like to learn for one reason or another. Collectively, the short texts are intended to highlight some of the more salient features of programming languages.

Language 1: Python

Guido van Rossum created Python and first released it on February 20, 1991. He began doing application-based work for Python in December of 1989 at Centrum Wiskunde & Informatica (CWI) in the Netherlands. Python succeeded the ABC Programming Language, which interfaced with the Amoeba Operating System and had exception-handling features.

The reason Python would be worth learning is because:

- 1. Python allows programmers to complete codes ranging from the simplest to the most complex. Not to mention the number of applications Python gets used for these days. Examples include data science, software development/engineering, machine learning, and game design.
- 2. When it comes to writing in Python, the syntax is very similar to English, making it very readable and beginner-friendly for people new to programming.
- 3. The motivating application for Prolog was natural language processing, and Prolog has been used in many natural language processing projects. Since I am interested in natural language processing, I would like to learn about Prolog's "definite clause grammar", and experience how the language might be used to do NLP work.

Language 2: JavaScript

JavaScript is an object-oriented scripting language released on December 4, 1995, because of Brendan Eich with Netscape. JavaScript was designed with relations to Java and C in terms of syntax and is associated with programming languages like TypeScript. JavaScript is mainly for web programs, mobile programs, and web servers with server applications.

The reason I want to learn JavaScript is because:

- It's beginner friendly for people who are new to coding.
- It's in high demand currently but a lot of people dependent on coders.
- It's a programming language I would love to get far in due to it being the default language of the internet.

Language 3: C#

C# is an object-oriented programming language that started because of Anders Hejlsberg in 2000 at Microsoft. It was approved as an international standard by Ecma (ECMA-334) in 2002 and ISO/IEC (ISO/IEC 23270) in 2003. C# is mainly for desktop, games, mobile, and web applications rather than systems programming applications. C# is similar to C++, JavaScript, and Java because of its syntax.

The reason I want to learn C# is because:

- It's easy to learn and beginner friendly.
- C# is a cross-platform. Meaning that before it was only closed off to Microsoft until many years later and it could be used on IOS devices.
- It's a programming language that I've always been curious about due to the multiple options available for C#.

Language 4: Swift

Swift is a modern programming language created by Chris Lattner and worked on by numerous Apple workers in July 2010. Swift inspiration for starting was Objective-C, and C, making Swift its successor. Swift is mainly for developing applications for Mac computers and IOS mobile devices. It can also be for both server and client-side development.

The reason I want to learn Swift is because:

- Codes in Swift can run very fast.
- It's very supportive of dynamic libraries.
- It's a programming language that I've wanted to learn due to it being used to make creative mobile applications.

Language 5: PHP

PHP is a general-purpose programming language created by Rasmus Lerdorf that was made public in 1995. The development began in 1993 when Rasmus Lerdorf wrote several common gateway interface programs in C ((Wikipedia)). He then extended them to web forms and databases and called this implementation "Personal Home Page/Forms Interpreter" ((Wikipedia)). This programming language got

designed for web development where its server-side got utilized. It also has a similar syntax to Perl, Java, and C.

The reason I want to learn PHP is because:

- PHP has some well-designed frameworks like Laravel, Symfony, Yii, Phalcon, etc.
- It makes debugging easier for coders.
- It's a programming language that can be easy to grasp due to it having some similarity to HTML.

Language 6: Ruby

Ruby is an open-source, object-oriented scripting language created by Yukihiro Matsumoto in Japan in 1993. The purpose of Ruby is for front-end and back-end web development on web applications, specifically for data processing and servers. With this popularity comes "Ruby on Rails," designed by David Heinemeier Hansson. With it, it made learning Ruby fun for programmers to indulge in.

The reason I want to learn Ruby is because:

- It has a strong developer community due to its framework Ruby on Rails.
- It's great for those who want to do the front-end and back-end of coding.
- It's a programming language that is in high demand currently.