

Teach Python Using Minecraft: Education Edition

Client:

Jeff McKune (Microsoft, Minecraft) jeffmck {at} microsoft {dot} com

Project:

Teachers around the world are using Minecraft: Education Edition to transform their classrooms and bring school subjects to life, from STEM and history to math and language arts. Minecraft: Education Edition provides hundreds of standards-aligned lessons, classroom-friendly features, tutorials and downloadable content.

Minecraft: Education Edition (MEE) offers an engaging platform for computer science education, with features designed to help students learn to code, and apply coding across STEM subjects. Today we have a set of block based curriculum for educators to teach foundational computer science concepts. We would like to create a learning progression of block based programming to text based programming with Python.

Today, there is a code builder interface into MEE. This project is to build a web-based Python IDE that is integrated into MEE. The code will leverage open source technologies (ex: Monaco Editor) that can be used to create a full featured IDE (syntax highlighting, auto completion, debugging, etc). In addition, the team will need to implement a curriculum delivery system to guide the user through the lesson progress (ex: Jupyter). Time permitting, the team can add a set of Minecraft integrated Python curriculum.

Team Size:

2-5

Skills:

- Python
- Web Programming (JavaScript / HTML)
- Curriculum Development

Location:

• Mines