

A blurred background image of a Minecraft world, showing a mix of green grass, brown dirt, and blue water. The text is centered over this background.

# *Generative AI Agents for Minecraft: Automating Creative World Tasks with Amazon Bedrock*

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## Team Members

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# What is Minecraft?

- Minecraft: A sandbox game for building, exploring, and surviving in block-based worlds.
- Survival Mode: Resource gathering, crafting, and survival against mobs.
- Creative Mode: Unlimited resources for building freely.





## Project Overview

An AI-powered Minecraft agent that automates world-building and gameplay with natural language commands, using Amazon Bedrock.



## Motivation and Goals

### Motivation

- Building detailed Minecraft servers is time-consuming.
- Our AI simplifies this process, allowing users to create immersive worlds and interactive elements quickly.



### Goals

- Build an AI agent that generates structures, designs gameplay elements, and manages server events.
- Provide an accessible tool for server owners, content creators, and educators.





## Tools and Techniques



Amazon Bedrock



Mineflayer Library



AWS CloudFormation



AWS CDK



AWS ECS



Node JS



## Workflow

1. Deploy AI Agents via Amazon Bedrock.
2. Use Mineflayer library to enable bot interactions in Minecraft Server.
3. Host and manage infrastructure using AWS CloudFormation and CDK.
4. AWS ECS to containerize and deploy our application.
5. Implement backend logic in Nodejs to handle user commands and bot responses.





Thank You!  
Questions?

