

KEVIN JUNYANG CUI

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WORK EXPERIENCE

Programming Intern, Nondisclosure video game

Behaviour Interactive

📅 Sept 2023 – Dec 2023 📍 Montreal, QC

- Programming on a medium-sized game development team, collaborating and communicating directly with artists and designers
- Implementing key features in animation and gameplay system in the early stages of a game development project
- Conducting code review, including that of senior programmers

Unity C# .NET Rider Perforce Jenkins Jira

Data Engineer Intern, Technology & Operations

RBC Royal Bank of Canada

📅 Jul 2021 – Aug 2021 📍 Toronto, ON

- Data provisioning, data pipeline automation, full-stack application development for database web portal, documentation generation
- Worked in an Agile team of 6, collaborating and communicating with other teams in different disciplines

Hadoop HDFS Java Maven Python SQL JDBC
Node.js JavaScript Express Git Jenkins Windows

Innovation Developer Intern, Technology & Operations

RBC Royal Bank of Canada

📅 Jul 2020 – Aug 2020 📍 Toronto, ON

- Full stack software development building internal applications: retrospective web application with React front-end and Express back-end
- Led an Agile team of 4 as a returning intern
- Moderated source control, reviewed, tested, and debugged
- Conducted usability testing, moderated test sessions with design teams

React Node.js TypeScript Express Git Windows

Innovation Developer Intern, Technology & Operations

RBC Royal Bank of Canada

📅 Jul 2019 – Aug 2019 📍 Toronto, ON

- Full stack software development building internal applications

Node.js TypeScript Java Git Angular Spring SQL

CONTESTS & WALKTHROUGHS

🌐 devpost.com/kevinjycui
📧 kevinjycui/advent-of-code-2020
📧 kevinjycui/advent-of-code-2019
📧 kevinjycui/picoCTF-2019-writeup
📧 kevinjycui/Competitive-Programming

HUMAN LANGUAGES

Native English & Mandarin
Intermediate Japanese, Beginner French

PROJECTS

kinnieplaylist.net

Character playlist database web-app

📅 Nov 2023 - current 🌐 kinnieplaylist.net

- Solo full-stack developed a React front-end, Flask back-end web-app, MySQL database for compiling character playlists

React MySQL Flask DigitalOcean
Nginx JavaScript Python Bash
REST JSON Git Spotify Web API

Contrap-san! (McGameJam '24)

3D FPS x Visual novel cross-over

📅 Jan 2024 🌐 arizoba.itch.io/contrap-san

- Developed procedural generation, animation, visual novel elements

C# Unity Git

Trial & Error (CreativeJam '23)

2D split-screen multiplayer escape

📅 Sep 2023 🌐 oksoft.itch.io/trialerror

- Sole developer. Also composed soundtrack

Godot GDScript Git

Level 1 Goblin (GMTK '23)

2.5D roles-reversed dungeon crawler

📅 Jul 2023 🌐 oksoft.itch.io/lvl1goblin

C# Unity Git

VRMPlaybackClient

Unity3D client for playback of encoded VTuber motion data

📅 Aug 2023 📧 kevinjycui/VRMPlaybackClient

C# Unity .NET Visual Studio
VMC/OSC

Donkey Kong Bongo to Key

Keyboard & mouse interface for the DK Bongos for GameCube

📅 Sept 2021 📧 kevinjycui/DKBongoToKey

C++ SDL DirectX (DirectInput)

Desmos Renderer (>500 stars)

Fun graphing calculator art tool

📅 Apr 2021 📧 kevinjycui/DesmosBezierRenderer

- Converts images to SVG, extracts Bezier curves, pushes to Desmos API as \LaTeX expressions

Python Potrace NumPy OpenCV
Flask JavaScript \LaTeX Desmos API

CortexPlugin

Minecraft plugin for Brain-computer interface

📅 Jan 2021 🔄 kevinjycui/CortexPlugin

Java Maven Python Flask WebSocket
JSON SpigotMC

Practice Bot (>800 servers)

Competitive programming utility Discord bot

📅 Mar 2020 – Jul 2021 🔄 kevinjycui/Practice-Bot

Python MariaDB Selenium discord.py AWS
Bash JSON

EDUCATION

McGill University

Candidate for B.Sc. Major in Computer Science

📅 2020 – 2024

📍 Montreal, QC

CGPA: 3.8/4.0, Game Dev McGill: VP Finance (2022-2023), VP External (2023-2024 *current*)

Research Project (2023): Audio to animation neural net

Python NumPy Jupyter Jupyter Notebook Tensorflow Unity C# .NET VMC/OSC

Advanced courses taken: Computer Graphics, Computer Animation, Artificial Intelligence, Intermediate Japanese Writing

Java Maven Spring C C++ OpenGL GLSL Python NumPy SymPy Unity C# .NET

Docker Bash x86 Assembly \LaTeX MS-DOS

SKILLS

Programming & Other Computer Languages

C++ C Python C# Java JavaScript Bash Go GLSL TypeScript GDScript Lua Scala
SQL HTML+CSS Arduino x86 Assembly \LaTeX

Frameworks, Libraries, Engines, & Databases

GNU .NET Node.js Unity Godot OpenGL SDL Maven Spring React Angular Express
Flask NumPy Django Hadoop HDFS Jupyter Tensorflow MySQL MariaDB OpenCV Selenium
Bootstrap SpigotMC

Development Tools & Environment

Git GitHub Perforce Docker Jenkins Jira Lint Linux Windows MS-DOS Jupyter Notebook
Visual Studio JetBrains Vim

Cloud, Protocols, File Formats, Graphics Softwares, & DAWs

AWS DigitalOcean Nginx JSON XML YAML HTTPS SSH REST WebSocket VMC/OSC
Blender Audacity Clip Studio Paint Muscore UTAU Microsoft Excel (Advanced)

YOUTUBE CHANNEL & OPEN SOURCE



YouTube Silver Play Button (>100K subscribers)

I run a YouTube channel covering topics in niche software, game dev, math, audio processing, etc. including video essays and tech demos. The channel has >15 million views as of 2024.

🌐 youtube.com/c/Junferno



Open Source

I occasionally contribute to open source projects on GitHub, such as DMOJ: Modern Online Judge



Bad Apple!! Demoscene (>6 million views, >800 stars)

I participate in the open internet demoscene of "Bad Apple!!" in which a black-and-white music video is programmatically played on as many different platforms as possible in creative ways

🔄 [kevinjycui/bad-apple](https://github.com/kevinjycui/bad-apple)