KEVIN JUNYANG CUI

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WORK EXPERIENCE

Tools Programming Intern, Baldur's Gate 3
Larian Studios

📅 May 2024 – Aug 2024   📍 Quebec City, QC

- Custom tools development on in-house editor software for game development & production of Baldur's Gate 3
- Introduced new features such as a new interaction mode in the scene window, performed refactors, and patched bugs for both the regular (internal) and modding (community) in-house game editor
- Communicated and collaborated directly with scripters, artists, animators, designers, and QA across studios internationally

C# | C++ | C++ CLI | .NET | WPF | WinForms | Perforce | Jira

Programming Intern, Nondisclosure video game
Behaviour Interactive

📅 Sept 2023 – Dec 2023   📍 Montreal, QC

- Programmed on a medium-sized game development team, collaborating and communicating directly with artists and designers
- Implemented key features in animation and gameplay system in the early stages of a game development project
- Conducted code review for junior and 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

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

Innovation Developer Intern, Technology & Operations
RBC Royal Bank of Canada

📅 Jul – Aug 2019 & Jul – Aug 2020   📍 Toronto, ON

- Full stack software development building internal web application

React | Express | 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

INDIE EXPERIENCE

Lead Programmer & Writer, SLEEP HERD
Lamp Katze Studio

📅 Feb 2024 - *ongoing*   🌐 lampkatze.com

- Designing and developing code infrastructure for indie game, owning feature implementations, refactors, bug fixes, etc. including gameplay, AI, & physics
- Leading team of 4 programmers. Creating roadmaps and setting milestones
- Performing dev-ops and tools programming to support artists, designers, and programmers
- Contributing to design, writing scripts & storyboards, composing music, filling in for artists on UI, concept art, animation
- Managing source control, conducting code review, creating documentation
- Managing recruitment, marketing, and production

Unity | Git | GitHub | Blender

PROJECTS

kinnieplaylist.net
Character playlist database web-app

📅 Nov 2023 - Jan 2024   🌐 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

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

Practice Bot (>800 servers)
Competitive programming utility Discord bot

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

Python | MariaDB | Selenium | discord.py | AWS | Bash | JSON

HUMAN LANGUAGES

Native English & Mandarin
Intermediate Japanese, Beginner French

EDUCATION

McGill University

Bachelor of Science Major in Computer Science

📅 2020 – 2025   📍 Montreal, QC

CGPA: 3.8/4.0

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

Game Dev McGill (GDM): VP Finance (2022-2023), VP External (2023-2024)

Research Project: Audio to animation neural network (2023)

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

International Exchange (2024-2025): Waseda University, Tokyo, Japan
Took courses on Multimedia Systems, Signal Processing. Member of Waseda Computer Entertainment (WCE) circle

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 · Musescore · 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 and >180k subscribers 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