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Kai Kuehner

Portfolio: <http://kaikuehner.com>
GitHub: <https://github.com/kaikue/>
LinkedIn: <https://linkedin.com/in/kaikuehner>

EXPERIENCE

- Amazon**- Software Dev Engineer II (L5)- Proactive Security Builder Experience 5/2025 – present
- Princeton Neuroscience Institute**- Developer (TypeScript, JavaScript, Python) 10/2019 – 10/2024
- Identified and collected metrics for evaluating user performance
 - Developed algorithm for comparing neurons using F-score based on volume differences
 - Interfaced with ChunkedGraph and CloudVolume backends to request and process data
 - Used Google Sheets API to identify new user data rows and fill in processed scores
- Created features for FlyWire online neuron proofreading platform
- Developed matching algorithm for weighted neuron connections flowchart
 - Implemented frontend and backend for daily user performance leaderboard
 - Consolidated many simultaneous user queries into cached periodic global request
 - Designed and developed chat system featuring user messaging and chatbot
 - Handled disconnecting and duplicate web socket connections to ensure single connection per user
 - Used Koa.js to create small web services running on Google Kubernetes Engine
 - Created modular dynamically-updating frontend components with Vue.js built on Neuroglancer
- Developed workflow and features for AI-driven online citizen science platform Pyr
- Consulted with users to identify workflow pain points and streamline common usage patterns
 - Rewrote and added features to virtual avatar character designer
 - Implemented layering and masking systems to prevent visual overlap of worn items
- CMU Human-Computer Interaction Institute**- Researcher (C#, Unity) 5/2018 – 8/2018
- Designed and developed multiple VR room-scale experiences
 - Utilized HTC Vive, Intel RealSense, and Leap Motion to create interactions
- Carnegie Mellon University**- Teaching Assistant (Ethics & Policy Issues in Computing) 1/2018 – 5/2018
- Graded papers, gave feedback on homework, assisted students
- Congregation Beit Simchat Torah**- Technology Intern (C#, WinForms, SQL) 5/2017 – 8/2017
- Redesigned processes, configured and deployed DokuWiki, provided general technical assistance, created application to generate Excel files from text
- Crestron**- Programming Tools Intern (C#, WinForms, ASP.NET MVC, SQL) 6/2016 – 8/2016
- Created business applications to automate programming Crestron devices
- BrightLogic**- Intern (C#, Unity) 6/2015 – 7/2015
- Developed games and licensing application for interactive LED floor system

EDUCATION

- Carnegie Mellon University**- B.S. in Computer Science, Minor in Game Design (QPA: 3.48) 2015 – 2019
- Relevant courses and extracurriculars:
- 15-462 Computer Graphics: rendering, geometry, animation using C++
 - 53-451 Research Issues in Game Development: VR game design and programming
 - 15-466 Computer Game Programming: creating a networked C++ game with a team
 - Global Game Jam 2018: Led a team to create a themed game in 48 hours
- Bergen County Academies**- Academy for Technology and Computer Science 2011 – 2015
- Relevant courses: Data Structures, C Programming, Linux Shell Programming

PERSONAL WEBSITE/PORTFOLIO: <http://kaikuehner.com>

Developed games using Unity, Game Maker, Python with Pygame, and HTML5 with Javascript

Utilized Git and Github for many projects, both individual and collaborative

Participated in game jams, designing & implementing games fitting a given theme in a short time

Designed and coded web pages using HTML and CSS

SKILLS

Python, JavaScript, TypeScript, Node.js, React, Vue.js, HTML, CSS, C#, Java, Kotlin, C++, C, Unity, SQL, Git, SVN, Koa.js, Google Cloud Platform (GCP), Google Kubernetes Engine (GKE), GitHub Actions