Andrew Kim

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Interdisciplinary software engineer looking for opportunities in back-end, front-end, and/or full-stack, with additional experience in simulation / visualization software and game development

Work Experience

MoodRoom   **Seattle, WA**
Lead Game Developer — Game Development   *May 2025 – Present*
- Conceptualized and built a minimum viable product (MVP) that effectively demonstrated product potential and secured interest from venture capital investors, raising over $100,000 in funding.
- Responsible for building and porting mobile app into multiple platforms, including iOS and Android, creating 1000+ wishlists and 4,000+ beta sign-ups during early access.
- Directed technical decision-making across a 5-person cross-functional team (design, art, and engineering), balancing innovation with scope management to ensure 95% of sprint deadlines were met on time.
- Architected and developed core gameplay systems from the ground up using the Godot engine, delivering performant and engaging player experiences.

Schindler Iterative Translation Lab, VA Puget Sound Medical Center   **Seattle, WA**
Data Engineer — Machine Learning and Data Visualization   *January 2025 – June 2025*
- Processed and cleaned 1.2+ TB of mouse behavioral data to visualize polysubstance use in mice, enhancing data interpretation and downstream efficiency by 35%.
- Selected and implemented a variety of machine learning models, including K-Means clustering, Multiple Correspondence Analysis (MCA) and Principal Component Analysis (PCA), reducing feature dimensionality by ~70% while preserving behavioral variance.
- Designed and deployed interactive data visualizations including dendrograms, heatmaps, and 15+ high-impact dashboards to facilitate improved decision-making for the research team.
- Co-authored a peer-reviewed research paper by contributing critical data engineering and visualization methodologies.

Lizard Tank, LLC.   **Seattle, WA**
Lead Game Developer — Game Development   *July 2024 – Present*
- Architected, designed, and implemented a custom physics system, saving the company thousands of dollars by eliminating the need for third-party solutions, while ensuring realistic and dynamic object interactions for enhanced gameplay.
- Developed and optimized user interface (UI) systems, reducing user frustration and saving hours of potential disengagement, resulting in increased player satisfaction and significantly boosting overall game and product engagement.
- Engineered AI behaviors using state machines and advanced algorithms for path planning and obstacle avoidance, leading to intelligent and responsive non-player character (NPC) movement.

MathWorks Inc.   **Natick, MA**
Software Engineer — Engineering Development Group   *May 2022 – June 2024*
- Architected and built a back-end research tool that enabled customers to efficiently sift through thousands of third-party analog devices and automatically generate relevant specification plots, saving over 1000 man hours of manual web searching.
- Built the first proof of concept, integrating Simulink with Unreal Engine for a leading construction firm, enabling virtual testing that saved ~$1M per vehicle on real-world testing and potential equipment damage.
- Led as Scrum Master and Operations Lead a team of 50+ engineers to efficiently assist hundreds of industry leading companies and academic institutions in defense, tech, biomedical, etc., with troubleshooting MATLAB and Simulink models as quickly and accurately as possible.

Technical Skills

Programming — C++, MATLAB, Python, Java, C#, GDScript, React
Software — Simulink, LabView, Microsoft Office, Perforce, GitHub, Git, Visual Studio, Godot, Unity
Mechanical — SolidWorks, Catia v5, Autodesk Inventor

Publications & Certifications

Anxiety and risk-taking behavior maps onto opioid and alcohol polysubstance consumption patterns in male and female mice

https://www.biorxiv.org/content/10.1101/2024.08.22.609245v2.full

AWS Machine Learning Specialist

Education

Western Governors University   **Remote / Salt Lake City, UT**

Master of Science in Computer Science and Artificial Intelligence (MSCS)   *May 2025 – December 2025*

Purdue University   **West Lafayette, IN**

Bachelor of Science in Astronautical and Aeronautical Engineering (BSAAE)   *May 2022*