Hung Nguyen

Software Engineer | London, UK (Flexible Relocation) | UK: +44 07919 507177 US: +1 (832) 361-0190

hnguyen@cs.stanford.edu | cs.stanford.edu/~hnguyen | linkedin.com/in/hung-the-nguyen

Summary

Software engineer with expertise in using Swift and Unity C# to build well-designed, human-centered experiences with readable and scalable codebases. Developed core UX libraries and backend integrations at an MIT Media Lab startup, worked with new immersive technologies at Apple, and improved documentation and processes across all roles. Fast learner committed to delivering intuitive and robust products to solve problems and delight users.

Relevant Work Experience

Independent iOS App Developer, *Self-Employed*   Remote | Jun 2023 – Present

- my ami (unreleased): A modern tamagotchi-like virtual pet, leveraging ML models and XR to personalize and bring it to life
  - Utilized on-device FCN classification models to predict user actions over 10+ feature variables
  - Implemented vision ML models (e.g. YOLOv8) and sound classifier with mobile RealityKit for real-time scene/context understanding
- Extrastellar Worlds (released), Take Dimensions (released), See the Sounds (retired)
  - Marketed and published each well-scoped application on the Vision Pro App Store within a few months of conception
  - Structured codebase using TCA library for easy composition, clear state management with side effects, and action-based testing
  - Optimized custom-built shaders (RC shadergraphs and Metal) to create full immersive environments for Apple Vision Pro
- Other (freelance)
  - Timely delivered updating requirements during a month-long rapid prototyping phase
  - Managed persistent data with SQLite through SwiftData and CloudKit infrastructure by designing simplified APIs

VR/AR Software Engineer, *Three Space Lab*   Remote | Aug 2020 – Jun 2023

- Integrated 3+ services (sometimes C++ interop) into PC/standalone OpenXR C# Unity projects (e.g. Google Analytics, Zoom)
- Developed 20+ networked (remote multi-user) 2D and 3D interactive systems/features (e.g. shared painting and teleportation)
- Built Swagger wrapper client for Unity to manage cloud file sync in VR with integration tests with local versioned file caching
- Trained 2 new employees with development tooling and procedures in an Agile environment with Jira/Linear and Notion
- Created and ran 3+ key demos with key features to attract multiple potential clients and private investors

Mobile Software Research Assistant, *The Wall Lab*   Stanford, CA | Jan 2020 – Aug 2020

- Offloaded gameplay images to AWS S3, and allow for dynamic loading as needed to minimize install size
- Prototyped interactive experiences using ARKit and competitive game modes for neurodivergent users and their caretakers

Software Engineering Intern, *Apple Inc.*   Sunnyvale, CA | Jun 2019 – Sep 2019

- Designed and developed an internal SceneKit-ARKit visualization framework with new hardware
- Optimized new 3D pose estimation CV algorithms across devices, with some now fully implemented in visionOS

Other Experiences

Unity Developer, *Inclusive User Testing in VR*   Boston, MA | Mar 2022

- Integrated Google STT, Azure TTS, and data sharing to server for accessible user reporting (e.g. screenshots, recordings)
- Worked with the A11y and differently-abled XR community for needfinding
- Won XR Reality Hack's XR for Inclusion award; invited and presented for the XR Access community

Electronics Workshop Instructor, *Stage One Education*   Boston, MA | Mar 2022 – Mar 2023

- Mentored secondary school students in Arduino/CAD workshops to build flying helicopters
- Debugged code and hardware failures on-the-fly for students in time-constrained environments

Cryptography Researcher, *Fidelius*   Stanford, CA | Mar 2018 – Jul 2018

- Implemented secure API interfacing with a large team to transfer I/O data between trusted origin server and an Intel SGX enclave over Bluetooth in malicious environments

Education

Stanford University | B.S. in Computer Science   Stanford, CA | Sep 2016 – Jun 2020

- **System Courses:** Operating Systems, Compilers, Intro to Cryptography, Computer & Network Security, Web Programming Fundamentals, Programming Languages
- **Design Courses:** Design for Accessibility, VR: The Possibility and Peril of Immersive Art, Designing Serious Games, Intro to Mechatronics, Beyond Bits and Atoms (EdTech)