Sebastian Yang

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Education

Carnegie Mellon University (Pittsburgh, PA)   Aug 2018 - Dec 2021
B.S. in Information Systems (GPA: 4.0/4.0)   Minor in Game Design
B.S. in Statistics and Machine Learning (GPA: 4.0/4.0)   Minor in Business Administration

Programming Language: C# (Unity), Python (nltk, Numpy, pandas), Swift (SwiftUI, ARKit, MapKit), Java, C
Data Analytics: R(ggplot, tidyr), SQL, MongoDB   **Web Development**: Ruby on Rails, HTML, CSS, JS, Jekyll
Relevant Coursework: Research Issues: Designing for XR • iOS Application Design and Development • Principles of Imperative Computation • Algorithms and Advanced Data Structures • Database Design and Development • Statistical Computing

VR/AR Development

Mixed Reality Research Assistant
CMU Augmented Perception Lab   Jun 2021- Dec 2021
- Prototyped a mixed reality navigation visualization software for autonomous vehicles with the Robotics Institute
- Developed hand interactions for scaling and rotation, MR/VR transitions, and object detection visualizations
- Contributed to a VR HCI research study on the change blindness phenomenon by developing a use case using Unity and C#

Virtual Reality Research Team Lead
CMU Cognitive Development Lab   Oct 2019 – Dec 2021
- Led a 4-person team to develop a VR software using Unity; developed a custom Stroop system and organized 11 sprints
- Investigate the correlation between physical activity and cognitive improvement. Co-authored paper published on iLRN

Virtual Reality Developer
Various Hackathons   Oct 2021 – Present
- Developed "Lightly Heavy" a space VR combat game in zero gravity, won the U.S. Space Force Award in HoyaHack
- Developed "Bat and Monitors", a VR rage room where a player can destroy everything, won 2nd place in μHacks,
- Developed "Vinder" a VR dating app that hosts the date in a virtual room, won Facebook Metaverse Award in HackCMU

President and VR Game Developer
CMU Game Creation Society   Feb 2019 – Dec 2021
- Led the development of a VR horror game with 37 team members; coordinated bi-weekly sprints and task prioritizations
- Built a story-based VR golfing dating-simulator game in addition to 4 mobile games, and 6 PC games using Unity and C#
- Implemented custom collision systems for VR golfing gesture, extendable enemy and weapon systems using Object-Oriented Programming, mobile touch-screen optimization for PC games, and a custom dating matching system
- Led the club with 100+ active members making 9 games in parallel; taught a CMU-credited course on how to use Unity

iOS Software Developer
Mobile App Projects   Sep 2020 - Present
- Developed "Artlas", an augmented reality app that tells users building names by scanning the buildings from any angle
- Developed "What2Yum", a collaborative asynchronous decision-making app that helps a group of people choose what to eat
- Developed "AnySync", an app that helps multiple parties achieve spontaneously consent on whether to do an activity or not
- Utilized SwiftUI, ARKit, RealityKit, CoreData, MapKit, CoreLocation, uses MVVM paradigm, Yelp API and Firebase

Internships

Production Management Intern
Blizzard Entertainment   May 2021 – Aug 2021
- Managed and triaged 200+ tickets by directly interfacing with 8 functional teams to hit a milestone for *Diablo Immortal*
- Designed user stories and a product roadmap for accessibility features and led the requirement negotiation with *NetEase*
- Coordinated two product feedback loops between *NetEase* and *Blizzard* for a smooth co-development process

Business Development Intern
ByteDance (TikTok) US   June 2020 – Aug 2020
- Collaborated on strategizing a 3-year market entry plan, including product matrix, revenue forecast, and ROI estimate
- Conducted 25+ market research studies including competitor analysis, market landscape scans, and capital movements
- Identified potential strategical partners and led an evaluation meeting for prospective investment and licensing deals

Market and User Researcher / Game Design Trainee
Tencent Interactive Entertainment Group (MUR Department / TiMi Studios)   March 2020 – June 2020/ Sep 2020 – Dec 2020
- Led an eight-person mobile game development team using an agile-scrum approach guided by mentors from TiMi Studio
- Concluded 41 helpful insights by analyzing 1000+ entries of first-hand survey data through data visualization
- Conducted two games' competitor research for Tencent in the US market; reports graded as "Excellent"