YANYUAN MO

1301 Fort Myer Dr, Arlington, VA 22209

(+1)6466605867 ⋄ mo.yan@northeastern.edu ⋄ LinkedIn ⋄ GitHub ⋄ Personal Website

EDUCATION

Northeastern University   *Jan 2024 - May 2026*
Master of Science in Computer Science   Overall GPA: 4.0/4.0
Courses: *Mobile Application Development, Scalable Distributed Systems, Algorithms*
Chang'an University, China   *Sept 2013 - Jul 2020*
MSc in Highway and Railway Engineering, BEng in in Transportation Engineering

OBJECTIVES

A First-year master student with 3 years of hands-on expertise in full-stack software development, seeking an internship opportunity to apply and expand my skills in a dynamic professional environment.

SKILLS

Programming Languages	C/C++, C#, Python, Java, VB
Software & Tools	Git, Unity, Android Studio, OpenCV, Docker
Database Management	SQL, MongoDB, Firebase, PlayFab
Deep Learning	PyTorch, Tensorflow

PROJECTS

Mobile Game Development Project — Archiventure   *Aug 2024 - Dec 2024*

▷ Architected a cultural city builder game in Unity using C# with PlayFab backend integration
▷ Engineered an isometric grid system with custom coordinate mapping for intuitive building placement and management
▷ Designed and implemented unique upgrade progression trees for each building type
▷ Created resource management system where buildings generate different outputs, achievement system, and in-game shop for building purchases
▷ Designed a hybrid save system with PlayFab cloud storage and Unity JsonUtility serialization, implementing cross-device progression with offline capability

Real-time Chat Android Application   *Aug 2024 - Dec 2024*

▷ Built a real-time messaging Android application utilizing MVVM architecture and Firebase for backend services
▷ Implemented user authentication and real-time message synchronization using Firebase Realtime Database
▷ Designed responsive UI with Material Design and RecyclerView, featuring emoji reactions and message status tracking

WORK EXPERIENCE

Shenzhen Expressway Engineering Consultants Co., Ltd., China   *July 2020 - Jan 2024*
Senior Software Development Engineer, Full-time

▷ BIM Intelligent Design Platform (Highway Edition)

- Designed and implemented the data structure and basic UI of the platform in C#, enabling users to create, edit, design, and access information on basic elements and design objects for highway route design
- Implemented, debugged, and tested the backend using C++; Designed 100+ test cases to increase software reliability

- Designed data structure wrappers to build a more generalizable framework on top of the existing backbone; Adapted it to implement new features, boosting productivity by 60

- Led customer communication for timeline planning, technical solution discussions, and requirement collection

- Designed and optimized application implementation plans for appropriate deliverables, decreasing delivery time by 45

- Mentored 4 junior back-end developers to add 20+ features; Conducted code reviews and improved codebase readability and efficiency

PUBLICATIONS

Y. Mo and H. Yang, "Urban road traffic safety design", Journal of Protection Engineering, ISSN 1674-1854 (2019).

Y. Mo and H. Yang, "Research on highway 3d geological model and geological knowledge base of alternatives selection", Chang'an University. DOI: 10.26976/d.cnki.gchau. 2020.001809 (2020).

PATENTS

X. Congfen, L. Zhongwei, C. Yongxin, W. Taoye, and **M. Yuanyuan**, "Bim cross-section line modeling method, system, equipment and storage media for routes", CN113221211A (China National Intellectual Property Admin) (2021).

Y. Mo and H. Yang, "Highway 3d geological modeling software v1.0", CN117922613A (China National Intellectual Property Admin) (2022).