

Emre Nitim

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Technical Skills

Languages: Java, Python, C#, C, JavaScript

Simulation & AI: Unity, ML-Agents, ROS 2, RViz, Gazebo, Autoware, Gymnasium

Tools & Data: Git, Ubuntu/Linux, Hadoop, FishNet Networking

Additional: Assembly, Processing, Pascal, Prolog

Education

Yildiz Technical University, B.Sc. in Computer Engineering Feb 2026

- GPA: 3.33/4.0
- **Coursework:** Data Structures & Algorithms, Computer Graphics, System Programming, Artificial Intelligence, Expert Systems, Neural Networks, Big Data Analysis, Natural Language Processing

Experience

Game Developer Intern, Core Engage | Unity, C#, Git Nov 2025 – Jan 2026

- Integrated Offset Geometry Contact, a penetration-free contact simulation model, into Unity.
- Connected the model with a custom XPBD solver and BVH-accelerated collision detection to support stable cloth simulation.

Software Engineer Intern, Karsan Automotive | Unity, C#, Python, ROS 2 June 2025 – Aug 2025

- Replaced Autoware's trajectory generation module with a custom reinforcement learning agent to produce smooth, drivable trajectories for autonomous vehicles.
- Adapted AWSIMLab, a Unity-based Autoware simulator, into a scalable training and testing environment for RL-based motion planning.

Selected Projects

Java Plugin Systems, Minecraft Game Additions

- Built 20+ Java addons for multiplayer Minecraft servers, reaching 80,000+ total downloads.
- Designed event-driven systems for real-time gameplay logic, player state management, ability lifecycles, and packet-level communication.
- Implemented complex interactive mechanics using techniques such as BFS, 3D inverse kinematics, Verlet-based rope simulation, and procedural particle generation.

Multiplayer Space Shooter Game, Graduation Project

- Developed a 3D space shooter game in Unity with procedural star system generation, real-time networking, and AI-controlled enemy ships.
- Trained two PPO-based agents with Unity ML-Agents: one for ship movement and navigation, and one for weapon targeting and firing decisions.
- Integrated FishNet Networking to support multiplayer gameplay and synchronized real-time interactions across clients.

Awards & Achievements

ProjectKorra Hackathon - Most Creative Submission Aug 2021

Awarded most creative submission among 12 community entries for Java plugin addon design.

OBSS Code Master - 4th place in Yildiz Technical University Feb 2019

Placed 4th in the Yildiz Technical University Code Master algorithm competition, organized by OBSS.