Enkhdavaa Batlkhagva

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I have five years of experience in software development. In this period, I gained in-depth knowledge in scrum/agile, software design, digital twin, and model based testing. Moreover, I consistently improves my technical skills in the area of web and game development, and machine learning.

Experience

Software Designer
ICT Netherlands B.V.

📅 Jan 2021 — Present   📍 Eindhoven, NL

- Created an infrastructure strategy for using Model-Based-Testing at Thermo Fisher Scientific.
- Created state transition models for testing various subsystems of the TEM microscope at Thermo Fisher Scientific.
- Designed and developed 3D virtual hardware simulator for testing the control software of a factory at ICT Group.

.NET C#, Unity 3D, C++

Software Designer Trainee
Thermo Fisher Scientific

📅 Jan 2020 — Oct 2020   📍 Eindhoven, NL

- Designed and developed a proof of concept for 3D virtual hardware simulator tool. The tool is for testing software using Unity3D game engine.

.NET C#, Unity 3D, Matlab

Embedded Software Engineer
Tavan Bogd Management

📅 Mar 2018 — Sep 2018   📍 Ulaanbaatar, MNG

- Contributed to implementing contactlesss payment using wireless technologies (Bluetooth and WIFI).
- Created a windows desktop application for exchanged data with Oracle DB.

.NET C#, C

Embedded Software Intern
Innovation for High Performance Microelectronics LLC

📅 Jan 2017 — Mar 2017   📍 Frankfurt (Oder), DE

- Implemented firmware drivers for a platform that measures a power consumption with high precision.

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Embedded Software Engineer
Ametros Solutions LLC

📅 Jul 2015 — Sep 2016   📍 Ulaanbaatar, MNG

- Developed firmware drivers for home automation devices (light-switch, intrusion and air quality sensors).
- Contributed developing wireless data transmission between devices.

.NET C#, C

Projects

Model Based Testing (MBT)
Thermo Fisher Scientific

📅 Oct 2021 — Present   📍 Eindhoven, NL

- Developed state transition models for random test generation
- Created a testing workflow for development process
- Developed adapters for CI by connecting SUT with MBT tool
- Created documentations and presentations for users

Axini, .NET C#, C++, GIT, Jenkins, Shell scripting

Center Of Excellence (COE)
ICT Netherlands B.V.

📅 Jan 2021 — Oct 2022   📍 Eindhoven, NL

- Designed and developed a virtual 3D factory simulator to replace hardware testing dependency
- Developed HAL interface for the simulator (DT) for higher abstraction layer software
- Created CI & CD for the simulator (DT)

Unity3D, OPC-UA, .NET C#, GIT, Docker, Bamboo CI

Virtual Hardware Simulator for Transmission Electron Microscope (EngD)
Thermo Fisher Scientific

📅 Jan 2020 — Oct 2020   📍 Eindhoven, NL

- Deisgned and implemented a 3D virtual hardware simulator for firmware and software testing so that testing is not dependent on real hardware.

Unity3D, .NET C#, GIT, Matlab, Docker

Dependency Management and Scope Control for HMI products (EngD)
Thermo Fisher Scientific

📅 Sep 2019 — Dec 2019   📍 Eindhoven, NL

Goal: Codeveloped a domain-specific language and a live-code dependency checker to detect software architechture violation.
Role: Software engineer co-developing a live dependency checker

Roslyn, .NET C#

Education

Engineering Doctorate (EngD) in Software Technology

Eindhoven University of Technology

📅 Oct 2018 — Oct 2020   📍 Eindhoven, NL

BSc Electronics Engineering Technology

Mongolian University Of Science and Technology

📅 Aug 2011 — Jul 2015   📍 Ulaanbaatar, MNG

Skills

C#	●●●●●
Agile Scrum	●●●●●
Git	●●●●○
C++	●●●○○
JavaScript and TypeScript	●●○○○
Python	●●●○○

Hobby

- Bouldering, Improvization, Running
- Playing guitar, sketching
- Game development

Projects

Designing Smart Landing System for Agricultural Drones (EngD)

AgroTech

📅 May 2019 — Jul 2019   📍 Eindhoven, NL

Goal: Design and implement the drone control software to save time of field analytics

Role: CI engineer and software engineer, responsible for proposing design choices and co-developing the drone control

Python, DroneKit

Face AI for Condition Monitoring (EngD)

Philips Healthcare

📅 Jan 2019 — Apr 2019   📍 Eindhoven, NL

Goal: Add new features to the existing remote consultation system using AI services (Microsoft face AI, Amazon Rekognition)

Role: Software developer/Configuration manager responsible for co-developing back-end services using C# and implementing a CI pipeline

Microsoft Face AI, Amazon rekognition, .NET C#