

# Enkhdavaa Batlkhagva



@ batlkhagva.e@gmail.com

@enkhdavaa

in Enkhdavaa Batlkhagva

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 contactless 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.

C

### 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

- Designed 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 architecture violation.

**Role:** Software engineer co-developing a live dependency checker

Roslyn, .NET C#

For more projects next page ...

## 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#**