Ijtihed Kilani

+358417408918 | ijtihed.kilani@aalto.fi | ijtihed.com · LinkedIn · Github · ResearchGate

EDUCATION

Aalto University Graduation: June 2026

Bachelor of Science in Computational Engineering, Minor in Computer Science
Relevant Coursework: Data Structures and Algorithms, Software Engineering, Linear Algebra, Numerical Methods

SKILLS AND TECH STACKS

Programming Languages: Python, C#
Frameworks and Libraries: Flask, React, OpenCV, TensorFlow, Bootstrap, Unity, TailwindCSS
Tools and Platforms: Git, Docker, PocketBase, Unity Editor

EXPERIENCE

Software Engineer March 2025 – Present

Sensofusion *Helsinki, Finland*

- Not assigned to any particular projects yet.

Research Assistant Dec 2022 – May 2024

King Abdulaziz University *Jeddah, Saudi Arabia*

- Analyzed genetic (SNP) and hematological (CBC) data from 2,200+ patients, identifying altitude-specific molecular and physiological hypoxia adaptations.
- Authored 3 peer-reviewed publications on genetic clustering and hematological variations.
- Mentored 5 researchers and led a team in experimental design, data analysis, and biotechnology R&D.

PROJECTS

The Yappin' Spirit | *C# (.NET), Unity, Python (OpenCV, DeepFace, Flask)*

- Developed a real-time emotion detection game integrating OpenCV with Unity to capture and analyze player emotions via webcam.
- Implemented facial recognition algorithm for interactive gameplay which allows response based on emotions.
- Deployed the game entirely on itch.io and presented it in a hackathon to 20+ participants and organizers.

Maze Maverick | *C# (.NET), Unity, Blender*

- Developed and deployed a 3D arcade game inspired by "Pac-Man" to Steam, with procedurally generated mazes.
- Implemented a finite state machine (FSM) for enemy AI which allows ghosts to exhibit different behaviors.
- Integrated Unity's post-processing stack for visual effects, including bloom and ambient occlusion.

Full Stack Web-app with Database and User Authentication | *Python, PocketBase, JS, Bootstrap, CSS*

- Deployed a Flask app integrating 'qrcode' and 'Pillow' for QR code generation, Base64 encoding.
- Used image embedding with PocketBase for data persistence and Flask-Migrate for migrations.
- Implemented secure user authentication, session management, and an API for image downloads, with Jinja2 for dynamic templates and JS for real-time interactivity.

Quran App | *Dart (Flutter)*

- Deployed a Quran application using Flutter with features such as page pinning and surah scrolling.
- Used procedurally generated pics for the display of surahs and designed for "old school" users due to average age.

Classic Bounce | *C# (.NET), Unity*

- Developed a remake of the classic "Bounce" game using Unity, featuring basic physics and levels.
- Published the game on itch.io, and updated the mechanics based on reviews.

PUBLICATIONS

Comparative Study of Complete Blood Count Between High-Altitude and Sea-Level Residents | *Cureus, Sep 8, 2023* | **Second Author**

Single Nucleotide Polymorphisms in HIF-1A, VEGFa, & VHL Genes | *Advancements in Life Sciences, March 6, 2024* | **Second Author**

Comparative Study of the Factors Affecting the Microbiota Presence in the Human Nasal Cavity After Covid-19 Influence | *Bioscience Research, Nov 15, 2023* | **Third Author**