



# Furkan Çetin

## Senior Software Engineer

Experienced software developer with a wide robotics background that includes numerous successfully delivered projects. Well adapted to startup environments and agile development where products are continually reshaped by customer. Demonstrated successful managing and leadership skills throughout the career in various roles. Committed himself to contributing to build a future where robots are for the betterment of life.

### Contact

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### Software

C++	●●●●●
Object Oriented Prog.	●●●●●
Algorithms & Data Strc.	●●●●○
QT Framework	●●●●○
Computer Graphics	●●●●○
Java	●●●○
Python	●●●○
Linux	●●○

### Robotics

Sensors & IO Modules	●●●●●
Actuators	●●●●○
ROS (Gazebo, Rviz)	●●●○
Mobile Robotics	●●●○
Depth Cameras	●●○

### Mechanics

CAD (Fusion360, Solidworks)	●●●●●
Manufacturing Methods	●●●●○
Workshop Equipments	●●●●○
Machine Components	●●●○

### Electronics

Circuits & Components	●●●●○
Microcontrollers	●●●●○
GPS, GPRS, Wifi, BT, BLE	●●●●○
PCB Design & Assembly	●●●○

### Others

Team & Project Mgmt.	●●●●○
UI & UX Design	●●●○
Agile Development	●●○

### Education

#### Koc University, Turkey

**BS in Mechanical Engineering (Full Scholarship) | 08.2008 - 11.2013**

- Assistantship at *MARC(Manufacturing and Automation Research Center)* and *RML(Robotics & Mechatronics Lab)*
- Designed and developed various humanoid robotic platforms
- Published "Vibrotactile Feedback in Steering Wheel Reduces Navigation Errors during GPS-Guided Car Driving" (Proceedings of *IEEE World Haptics Conference* and *New scientist*)
- Founder & Lecturer in *KU Game Engineers Club* and *KU Robotics Club*
- Courses taken:
  - Advanced Programming (*C,C++, Data Structures*)
  - Computer Graphics (*OpenGL, C++*)
  - Mobile Device Programming (*Objective C*)
  - Computer Integrated Manufacturing
  - Computer Simulation and Modelling (*C++*)
  - Mechanical Eng. Design (*Unigraphics*)
  - Mechatronics
  - Robotics

#### Udacity

**Robotics Software Engineer Nanodegree Program | 7.2020**

Taken online courses and delivered projects on topics:

- ROS Fundamentals
- Gazebo & Rviz
- Mapping and SLAM

**Self-Driving Car Engineer Nanodegree Program | 10.2020**

Taken online courses and delivered projects on topics:

- Computer Vision (*Python, OpenCV*)
- Deep Learning
- Localization (*Kalman Filters, Particle Filters*)
- Path Planning and Navigation (*PID Control*)

**Agile Software Management Nanodegree Program | 03.2021**

Currently taking online courses and delivering projects on topics:

- Foundations of Agile and Agile Frameworks
- Agile Planning and Prioritization
- Progress, Communication, and Organizational Agility

### CAREER

#### Relimetrics

**Senior Software Developer | 05.2021 - Now**

- Working remotely with an international development team from Germany and San Francisco
- Prototyped a UI editor software for creating dynamic screens with dynamic widgets
- Developed the Relimetrics Software in QT Framework (*C++, QT*)

#### WalkOVR Technologies

**Senior Software Developer & Technical Team Lead | 07.2020 - 05.2021**

- Managing the project development processes as the technical team leader of team of 8 developers
- Gained extensive experience about VR and Mocap systems, IMU sensors and Sensor Fusion
- Taking active roles in mass production stages of hardware products
- Reshaped UI & UX design by customer feedbacks, hence users active usage duration increased more than %34
- Performing communication with customers and delivering technical supports
- Developed the OVRPortal desktop application and published regular releases with updates (*QT Creator, C++, Bluetooth, TCP Socket, Database Connection*)
- Improved the motion detection algorithms in embedded software (*STM32, Keil, C*)

## Language

Turkish (Native)



English (Fluent)



Italian (Good)



## Hobbies



## Devim DesignLab

Founder & Manager | 11.2017- 12.2019

- Delivered software and hardware product prototypes and MVPs for more than 12 start-ups.
  - Butterfly Dress; a wearable tech project which is exhibited in *2047 Apologue* exhibition that is held in major cities of China many times (*Wifi*)
  - Avus ; IoT smart city project to betterment city life (*Sensors, 3G, Lora*)
  - ThingShower ; Pocket size UVC sterilizer product
  - Movero ; Mobile telepresence robot for remote monitoring (*4G, RPLidar, ROS*)
- Gathered deeper knowledge about various sectors by providing technical consultancy for start-ups
- Coordinated 7 different developer teams for various projects

## Milklab Creative Technologies

Mechatronics Engineer | 04.2015 - 11.2017

- Initiated and managed 9 different R&D Projects;
  - Developed a 6 DOF robotic arm for exhibitions (*C++, Dynamixel Servo Motors*)
  - Prototyped an omni wheel mobile robot (*C++, ARM, PID control, RPLidar, ROS*)
- Acquired opportunity to work with well-known international companies
- *DriVR Simulator; (for KIA Motors)*
  - Designed overall simulator system by using prior simulation work experience
  - Supported software developer team on developing motion algorithms (*C++*)
  - Ensured the coordination between software and hardware developer teams
- *SmARt Engine; (for Exxon Mobil1)*
  - Led the development and integration process of products in Turkey
  - Resided in *London* for customer support and customer experience observations
  - Designed the electronics and embedded software (*C++, Motor Drivers, BLE, Li-ion Batteries*)
- *Beauty Assistant; (for Unilever)*
  - Performed on site observations to understand customer needs and requests
  - Built software for depth camera integration and testing with users (*C++, RealSense*)
- *BarillaIQ; (for Barilla)*
  - Performed software integration of object detection on touchscreen displays (*Java*)
  - Assisted the project team on exhibition area
- Achieved national and global awards as a team;
  - Crystal Apple 2015: 2nd Place (*Direct Marketing & Marketing at Sales Point*)
  - MediaCat Felis 2016: 1st Place (*Media & b2b*) (*Direct Marketing & Innovative Technology*)
  - MediaCat Felis 2016: Achievement Awards (*User Experience Design*) (*Mobile & Augmented Reality*)
  - Crystal Apple 2016: 1st Place (*Innovative Technology & Digital Media Usage*)

## Sanlab R&D and Simulation

R&D Engineer | 12.2013 - 07.2014

- *Forklift, Backhoe Loader and Excavator* simulation & simulator systems;
  - Analyzed and reported performance tests of simulation software
  - Presented a new product solution for transferring sensor data between simulator and simulation (*ARM, Linux, C++*)
  - Developed calibration software for I/O modules in simulator cabinets (*QT Creator, C++*)

## Gelecek Robotics Technologies

Robotics Engineer | 07.2013 - 12.2013

- Gained experience about fundamentals of startup environment
- 6 DOF Modular Robotic Arm Project for rehabilitation;
  - Implemented proper data structures and algorithms for performance improvements (*C++*)
  - Fixed bugs in the inverse kinematics calculations

## FutureRobotics.com

Founder | 10.2012 - 06.2013

- Launched online shopping website for selling DIY robotics parts
- Negotiated and became the distributor of *ElecFreaks* in Turkey
- Managed all administrative works