DEMIR**CAN**
TAS

Visual Computation &
Design Research

Graduate student with professional experience
in computer graphics & animation, focused on
design computation and computer vision.

📍 Cambridge / MA

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🌐 demircantas.com

⚙ github.com/demircantas

Computer Vision (Python)
Design Computation
Computer Graphics (C++, PyMEL & Blender)
Embedded Programming and Design
Unreal Development (C++)

EXPERIENCE

2/2022 – 2/2024
part time

Research Assistant (MIT) UMG / Environmental Solutions Initiative
Designing and developing virtual reality tools that combine geospatial data, LLMs, gesture and voice input in real-time

Summer 2022-23
full time

Research Assistant (MIT) LCAU / Schwarzman College of Computing
Training image auto-encoders and language models for geo-spatial version control system created for community engagement use case in South Africa

9/2021 – 5/2024
part time

Teaching Assistant (MIT) Architecture, EECS

6.8300-1 - Advances in Computer Vision (Upcoming - Spring 2024)
Vincent Sitzmann, Mina Konakovic Lukovic, Sara Beery
6.8300-1 - Advances in Computer Vision (Spring 2023)
William T. Freeman, Vincent Sitzmann, Antonio Torralba, Mina Konakovic Lukovic
6.9020[J] - How to Make (Almost) Anything (Fall 2022)
Neil Gershenfeld
4.542 - Background to Shape Grammars (Spring 2022)
George Stiny
4.500 - Introduction to Design Computing (Fall 2021)
Larry Sass

9/2019 – 9/2021

Researcher Istanbul Technical University
Implemented computer vision tools for interactive shape detection on dense photogrammetry models of medieval Anatolian heritage for the TUBITAK funded project 119K896, led by Prof Mine Özkar.

2014 – 2021

Lecturer Anima School / Anima Istanbul
Taught the courses: 3D Modeling and Scripting for Maya and ZBrush, Introduction to Digital Rendering and Compositing, Computer Graphics for Design & Production.

2014 – 2019

Technical Director - Freelance & Consulting demircantas.com
Providing pipeline design services for conceptual design, making and visualization within the fields of architecture, industrial design and entertainment.

2013

Senior Technical Artist industriromantik.se
Worked as a freelancer on architectural projects, modeling, texturing and rendering environments including landscapes, architecture, interiors and assets. Also worked on modeling, texturing and rendering of commercial product designs.

2010 – 2012

Technical Artist / Designer lhvfx.com
Worked on architectural projects, modeling, texturing and rendering environments including landscapes, architecture, interiors and props.

EDUCATION

5/2024 degree list — **Master of Science** — Massachusetts Institute of Technology
Dual degree program in SMArchS (Design & Computetion) and SM (Electrical Engineering and Computer Science)

2019 — **Master of Science in Architecture** — Istanbul Technical University
Taş, Demircan. Photogrammetry based heritage modeling with shape embedding, Master Thesis, Supervisor: Prof. Dr. Mine Özkar, June 2019.

2011 — **Bachelor or Science in Landscape Architecture** — Istanbul Technical University
Landscape Architecture

AWARDS & PUBLICATIONS

2022 – 2023 — **Sandbox, Design X** — Massachusetts Institute of Technology
Venture accelerator grantee and cohort,
Construct() real-time voice-2-blocks AI for games

2023 — **Prototype Fund** — Open Knowledge Foundation / Germany
Part of grantee team, Drawing Participation: Collectively Re-Blocking a Million Neighborhoods

2022 — **W. Danforth Compton Memorial Scholarship** — Massachusetts Institute of Technology
Tuition and stipend funding for Fall 2022 & Spring 2023 semesters

2021 — **Emerson Scholarship** — Massachusetts Institute of Technology
Tuition and stipend funding for Fall 2021 & Spring 2022 semesters

2019 — **Fotogrametri Verilerinde Gömülü Biçim Eşlemesiyle Yapısal Modellerin Oluşturulması** — MSTAS 2019
Conference paper presented in Kocaeli / Turkey

2018 — **A Design System for Crossing Gaps with Rheotomic Surfaces and Allometry** — MSTAS 2018
Conference paper presented in Isparta / Turkey

2018 — **Generating Forms via Informed Motion, A Flight Inspired Method Based on Wind and Topography Data** — Formal Methods in Architecture
Conference paper presented in Porto / Portugal

2014 — **R3BUILD 3rd Annual EP Design Competition / 2nd Place** — Urban Green Council
"The competition tasks students and young professionals with designing a single-family home to withstand extreme weather events for areas most susceptible to increased storm intensity, frequency, and sea level rise. Teams should consider the applicability of their design to modular, off-site construction to further take advantage of time constraints in rebuilding efforts following natural disasters. Teams should aim to meet LEED for Homes Gold v4 requirements"

LANGUAGES

English - TOEFL-IBT: 112/120
Turkish - native
Japanese - MIT - Japanese 1

AMATEUR

Sailing - MIT Provisional
Digital painting
Livecoding & Analogue Synth - MIT FaMLE

NON PROFIT

Introduction to computing courses for local communities as part of Komsu Kapisi local solidarity organization in Sisli / Istanbul