

OZGUN GENC

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Experienced Software Engineer with a strong background in Image Processing. Proven expertise in 3D Computer Vision, Computer Graphics and Neural Graphics. Skilled in rapid prototyping and driving projects from concept to completion. Seeking a position as a CV/ML Engineer to leverage my skills in developing innovative solutions.

WORK EXPERIENCE

Neural Graphics Engineer

Artlabs, Remote Istanbul

Remote Istanbul
Nov 2021-Aug 2023

- Conducted research and development in Neural Graphics Team.
- Investigated and developed methods for 3D Reconstruction and Texture Transfer from sparse views.
- Artlabs is a startup providing technologies for AR, 3D commerce and virtual try-on for fashion items. Within the Neural Graphics Team, our primary objective was to transform multi-view product photography into mesh assets using neural techniques.

Independent Developer

Project: OZ Effects (Self-employed)

Izmir
Mar 2022-Nov 2022

- Designed, developed, and marketed the OZ Effects ([link](#)) video effects app for iPhone and iPad, featuring creative GPU (Metal) based camera and video filters.

Graphics Software Developer (Image Processing)

Pixery

Istanbul
July 2018-Feb 2022

- Worked in the development of Pixery's Metal and OpenGL based mobile video graphics engine. The video engine is the basis of Pixery's popular video editors, including Funimate, one of the top photo/video apps in iOS App Store.
- Development of new image/video effects to run on mobile GPU: Algorithm development, shader based low-level implementation and app integration.
- Migration of the OpenGL pipeline to Metal.

Computer Vision Engineer

Koç University - Optical Microsystems Laboratory / Augmency Inc.

Istanbul
Feb 2017- Nov 2017

- Worked for Augmency, the lab's ERC (European Research Council) funded Augmented Reality spin-off.
- Development of the Computer Vision capabilities of our novel Projection-based AR headset: including Feature Matching, Object Tracking, Camera Calibration and Projection Mapping.
- Native (NDK), Android and Unity3D implementations using OpenCV library.

Design Architect

Vestel (VESTEK R&D) — *Multimedia/Video-over-IP group*

Istanbul
Jun 2015-Mar 2016

- Lead the design and development of Cloud Controlled Audio-Visual CMS/Digital Signage product.

Senior Design Engineer

Vestel (VESTEK R&D) — *Multimedia/Video-over-IP group*

Istanbul
January 2012-June 2015

- Contributed to Smart TV, Android TV, Smart Home, and Hotel TV projects, implementing features and building quick prototypes.
- Designed and implemented Animated Feature OSD demo screen running as the store mode in Vestel manufactured TV sets around the world.

Graphics Software Engineer

Yogurt3D

Istanbul
May 2011-Oct 2011

- Worked on the development of GPU bound 3D Graphics Engine for the Flash Platform to run on web browsers. Shader-level graphics programming for Flash.

Teaching and Research Assistant

Koç University — *Graduate School of Science and Engineering*

Istanbul
Sept 2007-Sept 2009

- Research activity on Super-resolution Video Enhancement Techniques for Multi-view video.

Software Design Engineer

NORTEL-NETAŞ Telecommunications, Istanbul — *R&D*

Istanbul
July 2006-Sept 2007

- Developed and documented a new feature (“Do Not Disturb” Service Support for Hunt Groups) for the major customer, Turk Telekom.
- Code ownership of SCTP/IUA/M3UA modules in Nortel switches.
- Gained experience in development and project management processes for a very large scale and long-term software project in a multinational company.

EDUCATION

Master of Science in Electrical and Computer Engineering

Koç University, Istanbul

2007-2010
Full Scholarship

Thesis Title: Depth-guided Super-resolution of 3D Video ([link](#))

Supervisor: Prof. A.Murat Tekalp

Projects:

- Recognition Based Face Super-resolution (*Digital Video Processing*)
- 3D Face Shape Reconstruction from Multiple Images (*Computer Vision*)
- 3D Video Displayer (*Computer Graphics*)
- 3D Simulations of Rigid Bodies, Flexible Objects and FEM Simulation of Deformable Objects (*Computer-based Modeling and Simulation*)

Courses: Machine Learning, Linear Systems and Estimation Theory, Advanced Digital Signal Processing, Algorithms and Computational Complexity, Random Processes

BSc. in Electrical-Electronics Engineering

Bilkent University, Ankara

2000-2004

Senior Project: MPEG-2 Video Encoder

Favorite Elective Courses: Digital Image Processing, Digital Signal Processing

SKILLS

Languages: Python, C/C++, Swift, Objective-C

Technologies: PyTorch, OpenCV, Metal, OpenGL, NumPy, iOS, Android, Unity, Matlab, Blender

Expertise: 3D Computer Vision, Computer Graphics, Image/Video Processing, Neural Graphics, Machine Learning