OZGUN GENC

ozgungenc@gmail.com +90 5334584496
https://www.linkedin.com/in/ozgungenc/ https://www.ozgungenc.com/

Experienced Software Engineer with a strong foundation in image processing, computer vision, visual AI, and GPU programming. Seeking a role as an ML/CV Engineer to apply my engineering expertise while expanding my impact in applied AI systems.

WORK EXPERIENCE

Neural Graphics Engineer Istanbul
Artlabs — *AI startup building 3D and AR solutions for e-commerce* **Nov 2022 - Aug 2023**

- Conducted R&D in Neural Graphics/Computer Vision for Augmented Reality and 3D commerce applications.
- Aligned current research with business needs to develop commercially viable solutions.
- Leveraged Neural 3D Reconstruction techniques to convert product photography into textured mesh assets for Augmented Reality and Virtual Try-on applications.
- Researched novel methods for texture transfer and product colorway generation from sparse views.

Independent Developer Izmir
Project: OZ Effects (Self-employed) **Mar 2022 - Nov 2022**

- Designed, developed, and marketed "OZ Effects", a video effects editor app for iPhone/iPad. The app showcases creative GPU-based (Metal) camera and video effects.

Graphics Software Developer (Image Processing) Istanbul
Pixery — *Mobile video editing startup* **July 2018 - Feb 2022**

- Developed Metal and OpenGL-based mobile video graphics engine for popular video editing apps, including Funimate, a top photo/video app in the iOS App Store.
- Created new video effects for mobile GPU; including shader-based implementation and app integration.
- Migrated existing OpenGL pipeline to Metal. Worked on graphics performance improvements for Android and iOS devices.

Computer Vision Engineer Istanbul
Koç University / Augmency Inc. **Feb 2017 - Nov 2017**

- Worked at Augmency, an ERC-funded (European Research Council) augmented reality spin-off from the Optical Microsystems Lab.
- Developed Computer Vision algorithms for Augmency's novel Projection-based AR headset.
- Implemented Object Tracking and Projection Mapping for AR using OpenCV, Android NDK, and Unity3D.

Design Architect Istanbul
Vestel (VESTEK R&D) — ***Multimedia/Video-over-IP group*** **Jun 2015 - Mar 2016**

- Led end-to-end development of a cloud-based Audio-Visual CMS/Digital Signage system for centralized control of Set-Top Box clients deployed across all Vestel retail stores.

Senior Design Engineer Istanbul
Vestel (VESTEK R&D) — *Multimedia/Video-over-IP group* **January 2012 - June 2015**

- Contributed to Smart TV, Android TV, Smart Home, and Hotel TV projects, working across diverse tech stacks to research solutions, implement features, and deliver both prototypes and final products.
- Engineered Animated Feature OSD demo mode, shipped with all Vestel TVs worldwide.

Graphics Software Engineer Istanbul
Yogurt Technologies — 3D virtual worlds in the browser **May 2011 - Oct 2011**

- Contributed to the development of Yogurt3D, a GPU-based 3D graphics engine for the Flash platform—an early example of interactive 3D rendering in web browsers.
- Developed low-level GPU shaders using Adobe Graphics Assembly Language.

Teaching and Research Assistant Istanbul
Koç University — *Graduate School of Science and Engineering* **Sept 2007 - Sept 2009**

- Conducted research on Super-resolution Video Enhancement Techniques.
- Teaching Assistant to Advanced Programming (C/C++) and Introduction to Programming (Java) classes.

Software Design Engineer Istanbul
NORTEL-NETAŞ Telecommunications — *R&D* **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 large-scale, long-term software development in a multinational company.

EDUCATION

Master of Science in Electrical and Computer Engineering **2007 - 2010**
Koç University, Istanbul *Full Scholarship*

Thesis: Depth-guided Super-resolution of 3D Video
Supervisor: Prof. A. Murat Tekalp
Courses and 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*)

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

BS in Electrical-Electronics Engineering **2000 - 2004**
Bilkent University, Ankara

Senior Project: MPEG-2 Video Encoder
Favorite Elective Courses: Digital Image Processing, Digital Signal Processing

SKILLS

Languages: Python, C/C++, Swift, Objective-C, C# and Web Technologies
Technologies: PyTorch, OpenCV, Metal, OpenGL, Android, Unity, MATLAB, NumPy
Expertise: Image and Video Processing, Computer Vision, Deep Learning, Neural Graphics