

# Abdullah Enes Oncu

Istanbul, Turkey

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## CAREER SUMMARY

Multiple-time medalist at the International Olympiad in Informatics. Skilled in algorithms, data structures, optimization, and backend architecture. Strong experience in C/C++, Python, SQL, and computer vision. Hands-on expertise in video transmission, augmented reality, distributed systems, and full-stack development. I am working professionally for 6 years. Currently focusing on backend architecture at Anchor Security (S4E.io).

## EDUCATION

**Bogazici University**, Istanbul, Turkey

Sep 2015 – Jan 2021

B.Sc. in Computer Engineering (Double Major with Mathematics)

GPA: 3.8

3rd place in Computer Science program

## PROFESSIONAL EXPERIENCE

**Architech** (Kuveyt Turk Bank)

Nov 2025 – Present

*Software Architect Engineer*

- Working as a software architect.
- Technologies: C#, ReactJS, Mssql

**Anchor Security (S4E.io)**

Sep 2024 – Oct 2025

*Backend Software Engineer*

- Working on backend architecture of the S4E product.
- Technologies: RabbitMQ, Kafka, PostgreSQL (SQL specialization), Flask, SQLAlchemy.

**Arista Networks**

Jul 2022 – Aug 2024

*Contract Software Engineer*

- Developed networking software in C++ and Arista's internal TAC and AREX languages.

**Palamar Technologies**

Mar 2021 – Jun 2022

*Full-Stack Software Engineer*

- Built a **Document Data Extraction Framework** integrating rule-based extraction with object detection models (Detectron2, RCNN family); supported labeling, training, and harmonization with extraction.
- Designed a **Python-based Chatbot Flow Engine**: parsed user-defined Python flows, persisted state in DB, paused/resumed execution seamlessly.
- Stack: Python, C++ (ad hoc Lagos), AI/ML, ReactJS, Django.

**Baykar Defense**

Jun 2019 – Feb 2020

*Intern & Part-time Engineer*

- **Augmented Reality Project:** Calibrated UAV tail (rear) camera; overlaid 3D objects on the pilot's view. Technologies: OpenCV, OpenGL, C++, C#.
- **Video Transmission Project:** Designed low-latency video pipeline; reduced latency from 400 ms to 200 ms (2× improvement). Enabled recording and compositing (e.g., HUD overlay). Technologies: C++, threads, C#, FFmpeg/libav.

### OfsimCom

Jun 2018 – Aug 2018

*Software Engineering Intern*

- Developed a route-planning extension with Google Maps APIs for the mobile app.

## PROJECTS

### PyFastAlgo

C++-based algorithm library with Python bindings. Broad data structures/algorithms with runtime helpers via Numba and NumPy. In active development.

### Convert Everything

Web platform for arbitrary conversions (e.g., images → PDF, hex → RGB). Included AI-based generation of new converters.

Stack: React (dynamic form rendering), Django (AI-driven I/O detection), SEO.

### DocManager

Document management system for law firms. Stack: Django + ReactJS.

### Historical Board Games

Board games with AI opponents. Stack: Python + AI.

### Donation Management System

Node.js, React, Firebase.

### Synchronized Video Playback within YouTube

Chrome extension and Python + FFmpeg (keeps an external video synchronized without violating IP rules). It was placing external video into youtube video on user defined rectangle.

## PUBLICATIONS

- *Analytical Investigation of Long-Time Diffusion Dynamics in a Synaptic Channel With Glial Cells.* IEEE Xplore, 2021. Available: <https://ieeexplore.ieee.org/document/9514841>

## HONORS & AWARDS

- International Olympiad in Informatics: Bronze (2014), Silver (2015)
- Balkan Olympiad in Informatics: Gold (2014), Silver (2015)
- Asia-Pacific Informatics Olympiad: Bronze (2014), Silver (2015)
- Turkish National Olympiad in Informatics: Bronze (2012), Gold (2013, 2014)

- ACM ICPC SEERC: 18th place (2015), 35th place (2018)

## TECHNICAL SKILLS

- **Programming Languages:** C, C++, Python, SQL, JavaScript
- **Backend & Databases:** Flask, Django, SQLAlchemy, PostgreSQL, RabbitMQ, Kafka
- **Frontend:** ReactJS
- **Computer Vision & AI:** OpenCV, Detectron2, RCNN family (Mask/Fast RCNN), PyTorch, NumPy, Scikit
- **Graphics & Video:** OpenGL, FFmpeg/libav, multi-threaded video processing, low-latency streaming
- **Software Engineering:** Algorithms, Data Structures, Competitive Programming, Distributed Systems, Full-Stack Development, Optimization, AWS, EC2, Lambda Functions
- **DevOps / Tools:** Docker, Nginx, Chrome Extensions, Firebase

## LINKS

- IOI Statistics: <https://stats.ioinformatics.org/people/5227>
- GitHub: <https://github.com/abdullahenesoncu>
- LinkedIn: <https://www.linkedin.com/in/abdullah-enes-oncu/>

## LANGUAGES

Turkish (native), English (fluent)