

Adnan Baysal

M.Sc.

Curriculum Vitæ

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Education

- 2012–2015 **Ph.D (courses only)**, *Kocaeli University, Institute of Science, Computer Engineering Department, Kocaeli, GPA: 3.93/4.*
Seven Ph.D courses successfully passed
- 2010–2011 **M.Sc.**, *Sakarya University, Institute of Science, Computer Engineering Department, Sakarya, GPA: 3.70/4.*
This program offers a M.Sc. degree without thesis
- 2003–2008 **B.Sc.**, *Koç University, Faculty of Arts and Sciences, Mathematics Department, İstanbul, GPA: 3.03/4.*
Graduated as *Second Ranking Student* in the Mathematics department

Experience

Vocational

- 2019/06–
today **Software Developer**, *Bigdata Teknoloji Inc., Beykoz İSTANBUL.*
 - Backend and fullstack (MVP) development in Blockchain Projects (PoC's)
 - Writing Smart Contract in Solidity (Ethereum) and Pact (Kadena Platform)
 - Responsible for new ventures and new patent ideas
- 2019/01–
2019/06 **C++ Developer**, *Sim-Tek Simülasyon ve Bilişim Teknolojileri, Çankaya ANKARA.*
 - OpenGL and C++ development in a war plane simulation project
 - HLA communication between devices
- 2008–2017 **Software Developer and Researcher**, *TÜBİTAK BİLGEM, Cryptology Department, Gebze KOCAELİ.*
 - R&D in cryptography
 - Implementation of cryptographic analysis techniques in C/C++, Python, Sage
 - Implementation of block ciphers, hash functions, RSA and elliptic curve operations in C/C++ and VHDL/Verilog (FPGA)

Teaching

- 2007–2008 **Teaching Assistant**, *Koç University, İstanbul.*
Teaching Assistant of the Introduction to Abstract Mathematics course.

Social Clubs

- 2007–2008 **Student Club President**, *Koç University, İstanbul.*
President of the *Science Society student club.*

Published Papers

- 2015 Adnan Baysal, Suhap Şahin: *RoadRunneR: A Small and Fast Bitslice Block Cipher for Low Cost 8-Bit Processors*. LightSec 2015: 58-76
- 2012 Adnan Baysal, Orhun Kara: *How Biased Are Linear Biases?* International Journal of Information Security Science (IJISS) Vol 1, No 1 (2012): 20–31
- 2009 Hüseyin Demirci, İhsan Taşkın, Mustafa Çoban, Adnan Baysal: *Improved Meet-in-the-Middle Attacks on AES*. INDOCRYPT 2009: 144–156

Preprints

- 2016 Adnan Baysal, Mustafa Çoban, Mehmet Özen: *Feistel Like Construction of Involutory Binary Matrices With High Branch Number*. <http://eprint.iacr.org/2016/751.pdf>.
- 2016 Adnan Baysal, Ünal Kocabaş: *ELiF : An Extremely Lightweight & Flexible Block Cipher Family and Its Experimental Security*. <http://eprint.iacr.org/2016/752.pdf>.

Provisional Patents Applications

- 2019 Adnan Baysal and Seyhan Civanlar. Subject: A blockchain based crowdfunding system. Sent recently to USPTO. Assignee: Bigdata Teknoloji A.Ş.

Computer skills

Programming	C/C++, Python, Swift, Javascript
IDE	VSCode, PyCharm, Qt-Creator, XCode
Library / Framework	Flask, Django, React, Redux, MPI, OpenGL, Boost, Web3
Blockchain	Ethereum (Solidity), Kadena (Pact)
Scientific	Matlab, SAGE-Math
Assembly	AVR assembly
Hardware	VHDL, Verilog (FPGA)

Languages

Turkish	Native
English	Fluent

Successes and Exams

- 2016 **GRE (IBT):** Quantitative : 170, Verbal : 146
- 2016 **TOEFL (IBT):** 95
- 2008 **TOEFL (IBT):** 92
- 2008 **Award for Science:** Given by the president of Koç University
- 2007 **ALES Exam :** Rank:402 out of 130.000 in the quantitative exam.

Educations with Certificate

- 2019 **İstanbul Blockchain Okulu**, *BlockchainIst, Bahcesehir University*, İstanbul, Turkey.
This 4-week 100 hour course is given by Dr. Bora Erdamar. Course's goal is to train the trainers in the blockchain technology
- 2014 **Intermediate & Advanced CUDATM Seminar**, *Middle East Technical University*, Ankara, Turkey.
Course is given by Oguzhan Oguz from nVidia Turkey
- 2013 **Ice Break 2013**, *Reykjavik University*, Reykjavik, Iceland.
6 day symmetric crypto summer school
- 2009 **Cryptanalysis of Symmetric Ciphers**, *TÜBİTAK BİLGEM (ICE project)*, Gebze, Turkey.
5 days course is given by Prof. Orr Dunkelman
- 2009 **RFID Security**, *TÜBİTAK BİLGEM (ICE project)*, Gebze, Turkey.
4 days course is given by Prof. Gildas Avoine
- 2008 **Topics in Cryptology**, *TÜBİTAK BİLGEM (ICE project)*, Gebze, Turkey.
4 days course is given by Prof. Bart Preneel
- 2008 **RFID Awareness Training**, *BITS RFID*, İstanbul, Turkey.
BITS RFID is a member of EPCglobal and RFID Turkey

Social Media

- LinkedIn <https://www.linkedin.com/in/adnan-baysal-b72646134/>
GitHub <https://github.com/adnanbaysal>
Hackerrank <https://www.hackerrank.com/adnanbaysal>

Interests

- Arts Photography and Drawing
Science Astronomy: Stargazing with binoculars and telescope
Coding Problem solving in [hackerrank.com](https://www.hackerrank.com), generating new and original integer sequences for oeis.org

References

Erozan Kurtas, Ph.D., *Bigdata Teknoloji A.Ş.*, İstanbul, Turkey, CEO.
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Ali Mostafazadeh, Ph.D., *Koç University, Departments of Mathematics and Physics*, İstanbul, Turkey, Professor of Mathematical Physics.
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