

BURAK AYDIN

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EDUCATION

Princeton University

Ph.D. in Operations Research and Financial Engineering (GPA: 3.95/4.00)

Princeton, NJ

Aug 2023 - Present

Advised by Ronnie Sircar. Coursework in Optimization, Probability, Stochastic Calculus, Statistics, Computational Finance, Risk Management, Asset Pricing, PDE Methods, Functional Analysis.

Departmental Graduate Student Committee Member.

Boğaziçi University

B.S. degree in Electrical and Electronics Engineering, High Honors (GPA: 3.90/4.00)
Minor degree in Economics (GPA: 4.00/4.00)

Istanbul, Turkey

Aug 2019 - Jun 2023

Kadıköy Anadolu Lisesi

High school (lycée) diploma, Valedictorian (Class Rank: 1/333)

Istanbul, Turkey

Sep 2014 - Jun 2019

EXPERIENCE

Wells Fargo Bank, N.A.

Quantitative Analytics Intern

Charlotte, NC

Jun 2025 - Aug 2025

- Member of the Rates team under Corporate & Investment Banking, Traded Products Model Development Center.
- Developed a C++ script for pricing of nonstandard European swaptions within bank's repository, worked on mathematical derivations of further functionalities.

Princeton University

Assistant in Instruction

Princeton, NJ

Aug 2024 - Present

- Energy and Commodities Markets, ORF 555 & ORF 455/ENE 455. (Fall 2025)
- Computing and Optimization for Physical and Social Sciences, ORF 363/COS 323. (Fall 2024, Spring 2025)

Bogazici University Photonics and Optical Wireless Communication Laboratory

Undergraduate Research Assistant

Istanbul, Turkey

Sep 2022 - Jun 2023

- Senior design project on Vehicle-to-Vehicle Communication. Focusing on field-of-view limitations on curvy roads, worked on hardware and software aspects for the project, used MATLAB for modeling.
- Editor's Choice Award from Photonics journal.

Max Planck Institute for Intelligent Systems

Undergraduate Research Intern at Physical Intelligence Department

Stuttgart, Germany

Jul 2022 - Sep 2022

- Utilized Python and Robot Operating System in order to construct a closed-loop controller with visual feedback, ran systematic experiments.
- Employed Machine Learning tools to achieve real-time data processing and decision making for robot motion.

Kusto Group Singapore - KGM Energy

Energy Operations Intern

Istanbul, Turkey

Jan 2022 - Feb 2022

PUBLICATIONS AND TALKS

[P] May 2025 – Fare Game: A Mean Field Model of Stochastic Intensity Control in Dynamic Ticket Pricing, with E. Parmaksiz and R. Sircar. *Mathematics and Financial Economics*, (doi.org/10.1007/s11579-026-00412-x) Published: 22 January 2026.

[T] Oct 2025 – *Oxford-Princeton Workshop XIV on Financial Mathematics & Stochastic Analysis*, University of Oxford.

ACHIEVEMENTS AND SCHOLARSHIPS

Turkish University Entrance Exam 2019: **6th** place in Quantitative & **1st** in English sections, among 2,528,031 test takers.

Recipient of Turkish Presidential Outstanding Success Scholarship, Bogazici University Outstanding Success Scholarship, Turkiye Is Bankasi Golden Youth Award during undergraduate education.

SKILLS AND INTERESTS

Programming: Python, C++, MATLAB, R.

Languages: Turkish (native), English (full proficiency), Spanish (intermediate), German (intermediate), Greek (beginner).

Clubs: Carnegie Lake Rowing Association, Princeton Club Tennis.