Berk Tan Perçin

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Education Background:

• Statistical Sciences - PhD - University of Bologna / November 2021 - Present:

Currently I am a PhD student in Statistical Sciences in University of Bologna. My main research area is Stochastic Differential Equations and Malliavin Calculus applied in Chemical Kinetics. My supervisor is Prof. Alberto Lanconelli from Statistical Sciences Department.

• Applied Physics - McS. - University of Bologna / September 2019 - October 2021:

I graduated from Applied Physics curriculum with 110 with Honors out of 110. This department introduced me the topic of Stochastic Processes, which is a field I mainly improved myself in. I believe it is a very useful field in other sciences as well (Biology, Chemistry etc.). I did my thesis with Prof. Alberto Lanconelli from Statistical Sciences department in University of Bologna, involving Stochastic Differential Equations applied on en epidemic model, analyzed them and supported the theoretical findings with Monte Carlo simulations.

• Molecular Biology and Genetics - BcS. - Bilkent University / September 2014 - June 2019:

I started to this department with comprehensive scholarship. I improved myself in cell biology, genomics, stem cell biology and in wet lab skills. I graduated with 3.66/4.00 CGPA with high honors.

• Physics - BcS. - Bilkent University / September 2017 - June 2019:

I did a minor program in Physics while I was studying in Molecular Biology and Genetics Department. I improved myself in Quantum Mechanics, Statistical Mechanics, Condensed Matter Physics and in my wet lab skills. My CGPA is 3.90/4.00 and I believe this minor program improved my interdisciplinary skills.

Experiences:

Probability/Stochastic Processes Related:

• Tutorship - Stochastic Processes - Bologna

I did the tutorship of the Stochastic Processes course of Quantitative Finance master's program of University of Bologna given by Prof. Alberto Lanconelli in fall semester of

2022 and 2023. The topics covered Brownian motion, Itô Integrals, Itô Formula and applications of well known Stochastic Differential Equations.

• Tutorship - Probability II - Bologna

I did the tutorship of Probability II course of Stats & Maths bachelor's program of University of Bologna in fall semester 2023, given by Prof. Pietro Rigo. The topics covered: Sigma algebras, random variables and Borel sigma algebra, mass and density functions, the characteristic functions, conditional probability and densities, independence and covariance, random vectors, convergence types (almost surely, in probability, in density or in integrable spaces), Laws of Large Numbers and lastly Central Limit Theorem.

• Tutorship - Probability Crash Course - Bologna

I did the tutorship of Probability Crash Course of Statistics master's degree program of University of Bologna given by Prof. Cinzia Viroli in fall semester of 2023. The topics included: random variables, random vectors, density and mass functions (joint and marginal), expectation and variance, independence and covariance, transformation of random variables.

Molecular Biology Related:

• Summer Intership - Johannes Gutenberg University - Germany

I studied as an intern in Johannes Gutenberg University between 01.07.2018 and 31.08.2018, in Germany about post-transcriptional modifications of RNA. During this period in Mark Helm's laboratory, I was responsible of production of the AlkB enzyme required for demethylation of tRNAs and purifying it. In addition to improving my wet lab skills in different molecular biology techniques, because I was also involved with the planning of the experiments, I also improved my scientific thinking and research conducting skills.

Summer Internship - University of Oxford - UK

I did my summer internship in Prof. Lynn Dustin's lab in University of Oxford. I worked to generate cell lines with various reporters, searched the affect of TNF-a on HCV infection, modeled on Huh-7 cells and improved myself in immunology topic and cell culture.

Summer Internship - CECAD - Germany

Between 03.06.2016 and 12.08.2016 I studied as an intern in CECAD in Germany about aging and cell apoptosis in C. elegans in Björn Schumacher's. I improved my wet lab skills, such as performing Western Blotting technique and microinjection, and learned about cell apoptosis/ageing in C. elegans.

• Voluntary Researcher - UNAM (Institute of Nanotechnology and Material Science) - Turkey
From September 2015 to September 2016, I worked voluntarily in UNAM in Ayşe Begüm
Tekinay's laboratory as an Undergraduate Researcher. I trained my skills such as wet lab
working and article reading and interpretation.

Languages:

- Turkish, Mother Tongue
- English, TOEFL iBT score: 105 out of 120 (C1)
- Italian, Intermediary
- German, Basic

Computer Skills:

- Python
- •MATLAB
- •LATEX