

# Daniel Nikolaev, PhD

# Python/Rust Developer

I am a self-thought Python/TypeScript/Rust developer with Ph.D. in finance. I have professional experience in automating accounting processes using Python scripts and notebooks, with a heavy focus on Pandas and NumPy. My current working project is a microservice related to accounting and reporting SaaS, that includes quite a few components from custom ORM, to XML-based workflows.

My current Interests are:

- > general interest in Rust and low-level programming;
- > scientific interest in AI ( mostly related to TensorFlow, Keras);
- > web-development back-end (Django / Rocket) and front-end (Solid-JS / Yew).

Portfolio: [www.daniel-py.net](http://www.daniel-py.net)

GitHub: Daniel Nikolaev

☎ +359 893435185

LinkedIn: Daniel Nikolaev

✉: [daniel\\_nikolaev@outlook.com](mailto:daniel_nikolaev@outlook.com)

📍: Sofia, Bulgaria

## PERSONAL PROJECTS

### Quoridor WebApp:

- \* peer-to-peer games of Quoridor;
- \* games of Quoridor against "AI";
- \* allows messaging (chat) between players;
- \* implemented account system from scratch;
- \* implemented session system from scratch;
- \* powered by Rust (Rocket / Diesel);
- \* front-end Solid-JS (TypeScript);
- \* deployed on AWS as Docker Image;
- \* includes A\* path-finding;

### Techforum website (deployed on Heroku):

- \* includes functional account system, email password recovery, generation of forum threads , comment system, friend list, direct messaging;
- \* use of custom forms, views and API endpoints;
- \* UI is based on Bootstrap 5;

### Portfolio website:

- \* includes capabilities for statistical prediction;
- \* database with financial assets;
- \* graph based neural network for short-term prediction;
- \* powered by Django;
- \* deployed with Linode server;
- \* **includes descriptions and links for all of my personal projects.**

## SOFT SKILLS

- *problem solving*
- *scientific mindset*
- *writing skills*
- *quick learner*
- *self-sufficient and self-motivated*

## TECHNICAL SKILLS

### Languages:

Python, TypeScript, Rust

### Database management:

SQL (SQLite3, MySQL)

### Python tools & frameworks:

Numpy, Pandas, TensorFlow, Django, FastAPI

### TypeScript tools & frameworks:

Solid-JS (HTML & CSS), Node

### Rust tools & frameworks:

Rocket, Diesel

### Other:

Docker, Git, GitHub, AWS

## EDUCATION & EXPERIENCE

### PhD in Finance

Tsenov academy of economics, Svishtov  
(28 June 2019)

### HedgeServ, ltd

Data Analysis, Junior Engineer (Python).  
(06 July 2021 – Present)

## LANGUAGES

Bulgarian

Native speaker

English

Proficient written and spoken





Dutch

Basic understanding

PERSONAL INFORMATION



Daniel Emilov Nikolaev

 Sofia, Bulgaria  
 +359 89 3435185  
 WEB: [www.daniel-py.net](http://www.daniel-py.net)  
 [daniel\\_nikolaev@outlook.com](mailto:daniel_nikolaev@outlook.com)  
 Researchgate: Daniel Nikolaev; [Facebook](#) Daniel Nikolaev

Sex Male | Date of birth 26.07.1991 | Nationality bulgarian

EXPERIENCE

5th of July 2021 – present

**HedgeServ**  
 Data Analysis, Engineer (Python)

EDUCATION AND TRAINING

01.05.2016 – 28.06.2019

**PhD degree №2019014/ 28 of June 2019**

Tsenov academy of economics, Svishtov

- Specialty „Finance“

05.09.2014 – 02.10.2015

**Master’s degree**

Tsenov academy of economics, Svishtov

- Specialty „Financial Management“

PERSONAL SKILLS

Native language

Bulgarian

Other languages

UNDERSTANDING		SPEAKING		WRITING
Listening	Reading	Spoken interaction	Spoken production	
Proficient	Proficient	Proficient	Independent	Independent
Basic	Basic	Basic	Basic	Basic

English

German

Communication skills

- Good work environment communication acquired during projects and participation in group activities.
- Good presentation skill, acquired during my education and participation in conferences.
- Ability to work in a team, developed during work on projects, unrelated work experience and education.

Organizational / managerial skills

- Ability to manage a small team, acquired during my study and unrelated work experience.

Programming

Python

- Pandas
- Numpy
- Django
- FastAPI

TypeScript

- Solid JS
- Node

Rust

- Rocket
- Diesel

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 Publications

- Article (indexed)
- "APPLICATION OF SIMPLE CONVOLUTIONAL NEURAL NETWORKS IN EQUITY PRICE ESTIMATION"
  - 2021 IEEE 8th International Conference on Problems of Infocommunications, Science and Technology (PIC S&T)
  - <https://ieeexplore.ieee.org/document/9772160>
- Article
- "DETERMINANTS AND THEIR DERIVATIVES, DEFINING THE INTEREST SPECIFICS OF THE CREDIT PORTFOLIOS IN THE EUROPEAN UNION (2010-2015)"
  - Yearly almanac "Scientific studies of PhD students" 12, 2016. ISSN 1313-6542
- Article
- VALUE AT RISK, COHERENT ALTERNATIVES CVaR AND EVaR - BENEFITS AND APPLICABILITY"
  - Yearly almanac "Scientific studies of PhD students" 13, 2017. ISSN 1313-6542
- Article
- THE IMPACT OF COMMERCIAL BANKS ON CONVERGENCE IN THE EUROPEAN UNION
  - Economic archive, 17.12. 2018, Issue 4, ISSN: 0323-9004"
- Article
- CHANGES IN THE FRANCHISE VALUE OF INTERNATIONAL BANK IN EUROPE AFTER APPLICATION BASEL III
  - Yearly almanac "Scientific studies of PhD students" 14, 2018. ISSN 1313-6542
- Article
- "UTILITY AND IMPORTANCE OF THE OPEN-SOURCED INVESTMENT PLATFORMS"
  - Anniversary journal "Difficulties of the informational technologies in the context of "Horizon 2020""
  - ISBN 978-954-23-1188-1
- Article
- "CHANGES IN THE RISK BOUND VaR IN THE KEY VARIABLE OF THE EUROPEAN BANK SYSTEM IN CRISIS SITUATION"
  - Anniversary journal "Modern difficulties for the financial science in changing Europe"
  - ISBN 978-954-23-1239-0
- Article
- "INVESTMENT PORTFOLIO IN THE BANK'S ASSETS"
  - Anniversary journal "Economic prosperity thru sharing of knowledge" second edition
  - ISBN 978-954-23-1186-7
- Text book
- "INTRODUCTION TO FINANCE".
  - Published as co-author in a textbook with tests and problems
  - ISBN 978-954-23-1230-7

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 Conferences

- 9<sup>th</sup> annual conference organized by department of Finance UNWE Sofia, 18-20.05.2019, Ravda. (paper is not yet officially published).
- 4<sup>th</sup> annual scientific conference – Monetarism and economic problems "New realities in the EU and the place of Balakan countries" organized by Monetary Research Center, UNWE Sofia 11-12.20.2018.
- Anniversary scientific conference "DIFFICULTIES OF THE INFORMATIONAL TECHNOLOGIES IN THE CONTEXT OF "HORIZON 2020"" 7-8 October 2016, organized by Tsenov academy of economics in Svishtov.
- Multinational scientific conferences "ECONOMIC PROSPERITY THRU SHARING OF KNOWLEDGE" 9-10 November 2016, organized by Tsenov academy of economics in Svishtov.

- Yearly conference “SCIENTIFIC STUDIES OF PHD STUDENTS” 2016, 2 December 2016, organized by Tsenov academy of economics in Svishtov.
- Multinational scientific conferences “MODERN DIFFICULTIES FOR THE FINANCIAL SCIENCE IN CHANGING EUROPE” 7-8 April 2017, organized by Tsenov academy of economics in Svishtov.
- Yearly conference “SCIENTIFIC STUDIES OF PHD STUDENTS” 2017, 30 November 2017, organized by Tsenov academy of economics in Svishtov.

Presentations

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- Subject “Comparative analysis of quantile valuation models used is capital investment” 9<sup>th</sup> annual conference organized by department of Finance UNWE Sofia, 18-20.05.2019, Ravda.
- Subject “EVALUATION OF PRICING MODELS USED FOR DERIVATIVES” – Monetarism and economic problems “New realities in the EU and the place of Balkan countries”, conference organized by Monetary Research Center, 11-12.10.2018.
- Subject “UTILITY AND IMPORTANCE OF THE OPEN-SOURCED INVESTMENT PLATFORMS” in an anniversary scientific conference “DIFFICULTIES OF THE INFORMATIONAL TECHNOLOGIES IN THE CONTEXT OF “HORIZON 2020”” 7-8 October 2016, organized by Tsenov academy of economics in Svishtov.
- Subject “INVESTMENT PORTFOLIO IN THE BANK’S ASSETS“ in a multinational scientific conferences “ECONOMIC PROSPERITY THRU SHARING OF KNOWLEDGE” 9-10 November 2016, organized by Tsenov academy of economics in Svishtov.
- Subject “DETERMINANTS AND THEIR DERIVATIVES, DEFINING THE INTEREST SPECIFICS OF THE CREDIT PORTFOLIOS IN THE EUROPEAN UNION (2010-2015)” in a yearly conference “SCIENTIFIC STUDIES OF PHD STUDENTS” 2016, 2 December 2016, organized by Tsenov academy of economics in Svishtov.
- Subject CHANGES IN THE RISK BOUND VaR IN THE KEY VARIABLE OF THE EUROPEAN BANK SYSTEM IN CRISIS SITUATION” in a multinational scientific conferences “MODERN DIFFICULTIES FOR THE FINANCIAL SCIENCE IN CHANGING EUROPE” 7-8 April 2017, organized by Tsenov academy of economics in Svishtov.
- Subject VALUE AT RISK, COHERENT ALTERNATIVES CVaR AND EVaR - BENEFITS AND APPLICABILITY” in a yearly conference “SCIENTIFIC STUDIES OF PHD STUDENTS” 2017, 30 November 2017, organized by Tsenov academy of economics in Svishtov.

Projects and other

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Project

- „DEVELOPMENT OF THE CAPACITY OF STUDENTS, PhD STUDENTS, POST PhD AND YOUNG SCIENTISTS OF TSENOV ACADEMY OF ECONOMICS IN SVISHTOV FOR A INNOVATIVE SCIENTIFICALLY-PRACTICAL STUDIES IN THE FIELDS OF ECONOMICS, ADMINISTRATION AND MANAGEMENT”
- COURSES: Methods of academic writing and presentation – first part: scientific communication, language, style. Methodology and methods of empirical studies – first part: Sociology; Methodology of science. Methodology and methods of empirical studies – second part: Statistics; WEB 2.0 instruments for publication of results from scientific studies.

Challenge „Ivanka Petkova PhD“

- Yearly challenge for PhD students in field of “International finance”, named after Ivanka Petkova PhD, organized on 5<sup>th</sup> of December 2017.
- Holder of 1<sup>st</sup> place.

ERASMUS+

- **Work and study in Serbia, Nis, University in Nis, for the period 01.03.2018 – 01.07.2018 (4 months), project PhD student mobility.**

APPENDIX

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- Copy of PhD diploma



СТОПАНСКА АКАДЕМИЯ "Д. А. ЦЕНОВ" - ВРАЦА

ФАКУЛТЕТ "ФИНАНСИ"

(наименование на звеното, организирано подготовката и защитата на дисертационния труд)

ПРИСЪЖДА

ОБРАЗОВАТЕЛНАТА И НАУЧНА СЪЕТЕН

ДОКТОР

Финанси, парично обръщение, кредит и застраховка (финанси)

ТНО

(наименование на научната специалност)

##

Даниел Емилов Николаев

(имената на лицето съгласно документ за самоличност)

26.07.1991 г., СВИЩОВ, БЪЛГАРИЯ

(дата и място на раждане - град/село, държава)

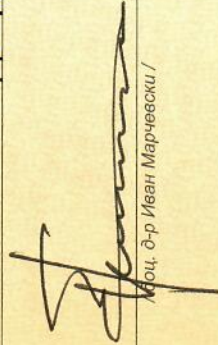
ЗА ЗАЩИЩЕН ДИСЕРТАЦИОНЕН ТРУД

Управление на банков инвестиционен портфейл в условията на Базел III

(тема на дисертационния труд)

Двадесет и седми юни две хиляди и деветнадесета година

(дата на защита на дисертационния труд, изписана с думи)

  
Проф. д-р Иван Марчевски /

Ректор:

Проф. д-р Йордан Иванов Василев

(име и подпис на ръководителя на звеното, организирано подготовката и защитата на дисертационния труд)

Диплома № 2019014

(регистрационен номер на дипломата)

Издадена на: 28.06.2019 г.

(дата на издаване на дипломата)

Проф. д-р Жельо Вълчев

(име и подпис на председателя на научното жури)

