# Yordan Grigorov

Curriculum vitæ



#### Bachelor Thesis

# Ongoing Automatic Optimization of Data Science Workflows through Pushdown to RDBMS, Bachelor Thesis in writing.

- Closed the gap between procedural data processing frameworks and RDBMSs, thus enabling data scientists to run complex RDBMS queries without writing a single line of SQL
- Experience with Python Pandas, SQL, PL/pgSQL, Postgres RDBMS, NetworkX graphs, benchmarking on Linux and visual reporting
- Scraping and parsing huge amounts of data to support the thesis statement

#### Education

- 2016–2021.07 **Business Informatics Bachelor**, Technische Universität Berlin, Expected Grade ~ 70%, Highlights of curriculum:.
  - Elective Data Warehousing and Business Intelligence
  - Elective Foundations of Artificial Intelligence
  - Information Systems & Data Analysis, Cloud Computing
  - o Distributed Systems, Web Technologies, Data Management and Cloud Computing
  - o Java I & II
  - Projects in symbolic AI with Python and streaming applications
  - Computer Science fundamentals I & II
  - Software Engineering & Programming Paradigms
  - Mathematics and Statistics I & II
  - 2012–2016 **Profile Mathematics and Natural Sciences**, Sofia High School of Mathematics, 98%.
    - $\circ\,$ 1 Year Extra<br/>curricular Competitive Programming
    - 1 Year Extracurricular Physics
    - o 2 Years Extracurricular Mathematics

# Internships

- 2018 Business Intelligence Dashboard Design, Axel Springer SE, 2 Months.
  - Developed insightful Key Performance Indicators for the Employer Branding department
  - Helped the department identify the weak points in their data pipeline and find a fitting solution.
  - Actively fought against discrimination of a teammate
- 2014 App Development for Danon's Digital Marketing Campaign, ilyan.com, 2 Months.
  - Broke a deadlock by mediating between Designers, Devs and Project Owner
  - Designed, sketched and developed a mobile game.

#### **Projects**

- 2021 Friendly Finance with Python, Personal Project, inspired by Professor Dr. Hans Hirth, 6 months.
  - Made teaching and learning finance easier by designing a visual method which develops the pupil's intuition in the subject.
  - Enables interactive online teaching for topics which cannot be easily turned into spreadsheets (the standard tools of the trade)
  - Experience with CAS (Computer Algebra Systems), visualization, API design
- 2020 Competition for symbolic board game AIs, Supervisor: Dr.- Ing. Stefan Fricke, 6 months.
  - Designed a multi-threaded AI for chess variant and scored 2nd place (out of 5)
  - $\circ~$  Quickly dealt with an unexpected problem and saved  $\sim 30$  people a lot of time
  - Worked overtime helping team members and rivals, achieving an even playing field in a competitive environment
  - Extra credit for voluntary work and original contributions
  - $\circ$  Remote working in a medium-sized team ( $\sim 30$ ) was constantly present in chat
- 2019 Streaming implementation of Linear Predictive Coding, Supervisor: Marcela Charfuelan, Ph.D, 6 months.
  - $\circ~$  Took an abstract scientific concept and developed a practical application.
  - Used Apache Flink, Grafana and InfluxDB to analyze human speech

# Workshops and Certificates

- 2020 **Standardization Expert Module 1**, *DIN*. Auditioned actual CEN and DIN meetings
- 2018 PREPARE Vocational Preparation, TUB Career Service.
- 2016 Introduction to Computer Science and Programming Using Python, MITx.
- 2015 Parallel programming with OpenMP on IBM Blue Gene, Bulgarian Academy of Sciences.
  - $\circ\,$  Course on Bash and OpenMP with C

# Programming Languages

Python SQL, Java, Bash HTML, CSS, JS



#### Planned

2021-2022 Academic paper on automatic data science workflow optimization through pushdown to RDBMS.

#### Hobbies

Whenever I am not playing with Unix systems I always come back to learning natural languages and reading about foreign cultures.

### Languages

English - Fluent, German - Proficient, Bulgarian - Native