

CV Supplement 3—Summary of Pedagogical Achievements

Teaching experience

- 2025 spring sem. **Bioinformatics for biochemical engineers (university mini-course, planned)**, *University of Chemical Technology and Metallurgy, Sofia, Bulgaria*
Biological data formats and databases, tools for bioinformatic analysis.
- Lecturer for 8 h = 4 h x 2 days
 - Instruction language: Bulgarian
 - Est. 10 students: undergrad
 - Reference: Mladen Popov (course coordinator).
- 18 Jan 2023 **Advanced data analysis for epidemiology (university lecture)**, *École normale supérieure (Paris), France*
[Rapid development of Bayesian Models for SARS-Cov-2 monitoring using probabilistic programming languages for the Web](#). Bayesian analysis, web scraping, web development.
- Lecturer for 2 h
 - Instruction language: English
 - Circa 25 students: advanced undergrad and Masters' biology and ecology
 - Reference: Amaury Lambert (course coordinator).
- 2020 **Computational skills for biologists with Python (graduate course)**, *National Museum for Natural History and Stockholm University, Sweden*
Python and related skills for science, source control, git.
- Co-lecturer for 1 semester (15 weeks, 2 h/week)
 - Instruction language: English
 - Circa 20 graduate students
 - References: Dr. Johann Nylander, Ingimar Erlingsson (co-lecturers).
- 2020 **Phylogenetics (graduate literature course, TA)**, *National Museum for Natural History, Sweden*
Literature course in phylogenetics for graduate students and researchers. Textbooks: *Molecular Evolution* (Yang), *Bayesian Evolutionary Analysis with BEAST* (Drummond and Bouckaert).
- TA for 1 semester (15 weeks, 2 h/week)
 - Instruction language: English
 - 7 graduate students
 - Reference: Prof. F. Ronquist.

- 25 Aug 2017 **Bioinformatics with R (invited lecture)**, *Software University*, Sofia, Bulgaria
Bioinformatics with R. Participated in planning a bioinformatics curriculum for Software University.
- Lecturer for 2 h
 - Instruction language: Bulgarian
 - circa 100 professional students
 - Reference: Valentin Dimitroff (SoftUni coordinator)
- 2017 **Bioinformatics with R (university course)**, *National Museum of Natural History*, Sofia, Bulgaria
R U BIO: designed an innovative concept for teaching statistics and R to advanced undergrad and graduate students of biology across majors and home universities in Bulgaria; I developed the course concept and organized the course with the help of the “Scientific discussions club” at the Sofia Natural History Museum.
- Lecturer and exercise lead for 1 academic quarter (10 weeks, 3 h/week, 2 h lecture + 1 h exercise)
 - Instruction language: Bulgarian
 - circa 60 students (from Sofia University, Bulgarian Academy of Sciences, National Museum of Natural History, University of Forestry)
 - Correction of weekly homework assignments
 - Reference: Antoniya Hubancheva (Science Discussion Club organizer, TA).
- 2015 **Statistics for biologists (undergrad, TA)**, *Ludwig-Maximilians-Universität*, Munich, Germany
 Mathematik II – Wahrscheinlichkeitsrechnung und Statistik: “Probability theory and statistics for biologists”
- TA for 1 semester (15 weeks, 2 h/week)
 - Instruction language: German
 - circa 15 undergrad students, biology
 - Correction of weekly homework assignments, final exam preparation and correction
 - Reference: Prof. D. Metzler (lecturer)
- 2010 – 2011 **Statistics (TA)**, *University of California*, Davis
 STA 13 Elementary Statistics
- TA for 2 quarters (2 x 10 weeks, 2 h/week exercise, 1 h/week office hours)
 - Instruction language: English
 - circa 25 undergrad students of all majors
 - Homework correction, final exam preparation and correction
 - References: Prof. Jie Peng and Prof. Christiana Drake (lecturers)

Supervision

- 2022 – 2023 **M.Sci. student supervision**, *École Normale Supérieure*, Paris, France
- Co-supervisor of a Master’s student
 - Extracting genomic information from the NCBI databases and applying a co-evolution model to the data
 - Reference: Caitlyn Jean Baptiste

University pedagogical education

- Apr 2019 **Famelab Training Masterclass**, *Cheltenham Festivals and British Council*, Sofia, Bulgaria
As part of the cohort of FameLab finalists in Bulgaria in 2019, I attended a weekend-long master class on science communication
- 2010 – 2011 **Video evaluation**, *University of California*, Davis
As part of my graduate studies in biostatistics I did a recorded lecture and got feedback on improving my teaching style

Pedagogical development and leadership work

- 2017 **“R U BIO”**, *National Museum of Natural History*, Sofia, Bulgaria
See above; I developed the core concept and attempted to extend it to the Software University

Science communication

- 25 Dec 2020 **Appearance on Bulgarian national TV**
The scientific discoveries of 2020 (in Bulgarian)
- 28 Jul 2020 **Invited speaker**, *ratio.bg web forum*
Mathematical modeling (in Bulgarian); [watch here](#)
- 27 Sep 2019 **Invited speaker**, *Natural History Museum*, London
World Wide Webs: Science communication conference [Hall of FameLab](#), winner first place
- 2018 – 2019 **FameLab Science Communicator**
National finalist in Bulgaria and invited to FameLab Hall of Fame in London.
- 31 Mar 2017 **TV Interview**, *Bloomberg TV*
Discussing the importance of data science for society