

Mgr. Jan ZÁLEŠÁK

KEY IT SKILLS

Python(Pandas,Numpy,GreatExpectations)
SQL, MSSQL, MySQL, AWS Athena
AWS, S3 bucket, Docker, GitHub.
Power BI, JavaScript, bash and MATLAB, Ubuntu.

KEY INTERESTS

Data engineering, data analysis, ETL. Machine learning and AI.

KEY BIOTECH SKILLS

11 years of experience with a very strong background in structural biology - determining 3D structures of biomolecules with NMR, cryoEM and molecular modeling.

WORK EXPERIENCE

- 2024** **Data Engineer and database owner; Vukoz**
 - *database development and ownership, ETL (python, PostgreSQL)*
- 2024** **Data Engineer in document automation; PriceWaterhouseCoopers**
 - *BI database testing w, ETL (python, PowerBI, PostgreSQL)*
 - *access rights management*
- 2023** **Data Engineer in testing and automation; Automators, s.r.o.**
 - *Automation of database testing with AWS Athena and Great Expectations*
- 2020 - 2023** **School vice-director, Manager of School development**
 - *digitalization & automatization, educational & organizational leadership*
 - *hiring, administration, planning (70 employees, 250 students)*
 - *project management, leadership of meetings and grant applications*
- 2018 - 2020** **Scientific fellow in Krejčí group, Masaryk University, Brno**
 - *data collection and analysis in cryo-Electron microscopy (EM)*
- 2014 - 2017** **Scientific fellow at Institute of Molecular Biotechnology, Vienna**
 - *data collection and analysis in cryo-EM and nuclear magnetic resonance*
- 2013 - 2014** **Internship at one of the best science centers: EMBL Heidelberg, GER**
 - *data collection and analysis in nuclear magnetic resonance*
- 2012 – 2013** **Diploma thesis in Molecular Chemistry Department, CNRS, Grenoble**
 - *data collection and analysis in nuclear magnetic resonance*
- 2009 – 2012** **Internship Masaryk University**
 - *protein production and purification*



EDUCATION

2013 Master of Science (Mgr.) in Biomolecular chemistry, Masaryk University

PUBLICATION LIST

1. **Zálešák J**, Constant JF, Jourdan M. Nuclear Magnetic Resonance Solution Structure of DNA Featuring Clustered 2'-Deoxyribonolactone and 8-Oxoguanine Lesions. *Biochemistry*. 2016 Jul 19;55(28):3899-906.
2. Codutti L, Leppek K, **Zálešák J**, Windeisen V, Masiewicz P, Stoecklin G, Carlomagno T. A Distinct, Sequence-Induced Conformation Is Required for Recognition of the Constitutive Decay Element RNA by Roquin. *Structure*. 2015 Aug 4;23(8):1437-47.
3. **Zálešák J**, Lourdin M, Krejci L, Constant JF, Jourdan M. Structure and dynamics of DNA duplexes containing a cluster of mutagenic 8-oxoguanine and abasic site lesions. *J Mol Biol*. 2014 Apr 3;426(7):1524-38.
4. Guo EZ, Desrosiers DC, **Zalesak J**, Tolchard J, Berbon M, Habenstein B, Marlovits T, Loquet A, Galán JE. A polymorphic helix of a Salmonella needle protein relays signals defining distinct steps in type III secretion. *PLoS Biol*. 2019 Jul 1;17(7):e3000351.
5. Činčera J, **Zálešák J**, Kolenatý M, Šimonová P, Johnson AB. We love them anyway : outdoor environmental education programs from the accompanying teachers' perspective. *Journal of Outdoor and Environmental Education*. 2021, 24(3):243-257.
6. Jan Činčera J, Johnson B, Kroufek R, Kolenatý M, Šimonová P, **Zálešák J**. Real World Learning in Outdoor Environmental Education Programs: The Practice from the Perspective of Educational Research. Book. Ed: Činčera J, Masaryk University Press.

LANGUAGE PROFICIENCY

Professional level: Czech, English, French

Communication level: Polish, Portugues

Basic communication level: Spanish, German