

František Kolovský



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year of birth 1992

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Education

- 2017 - 2022 **PhD degree - University of West Bohemia** in Pilsen, Faculty of Applied Sciences, Department of Geomatics, Geomatics
- 2019 six months internship at the **Norwegian University of Science and Technology** Department of Civil and Environmental Engineering
- 2015 - 2017 **Masters degree - University of West Bohemia** in Pilsen, Faculty of Applied Sciences, Department of Mathematics/Geomatics, Geomatics
- 2015 one semester at **Häme University of Applied Sciences**, Finland
- 2012 - 2015 **Bachelor degree - University of West Bohemia** in Pilsen, Faculty of Applied Sciences, Department of Mathematics, Geomatics
- 2008 - 2012 **The Secondary School of Civil engineering** in Pilsen
Geodesy

Professional experience

- 2022 - 2024 **Xeris AS** (xeris.no), Trondheim (Norway)
- *backend software developer* - Kotlin, PostgreSQL, MongoDB, Serverless, Python, GraphQL, Terraform, AWS
- 2020 - present **RoadTwin s.r.o** (roadtwin.com), Plzeň (Czech Republic)
- *Co-Founder, software architect, development lead*
- 2020 - 2022 **University of West Bohemia**, Plzeň (Czech Republic)
- *researcher*, leading of a group that is responsible for Dynamic Traffic Assignment models development (H2020 projects: DUET, S4AllCities)
- equilibrium problems (traffic assignment), graph problems, system of differential equations
- 2017 - 2022 **InnoConnect s.r.o.** (innconnect.net), Plzeň (Czech Republic)
- *senior developer* - Kotlin, Python, OpenCL, OpenGL, WebGL, PostgreSQL, ClickHouse
- 2017 - 2020 **Plan4all z.s.** (plan4all.eu), Plzeň (Czech Republic)
- *software developer*, work on the H2020 project PoliVisu
- data modeling, PostgreSQL(PostGIS), Java, Scala
- traffic modeling close to real time, traffic assignment problem
- 2013 - 2017 **University of West Bohemia**, Plzeň (Czech Republic)
- work on the H2020 project Open Transport Net and Plan4business
- data modeling, Scala, PostgreSQL(PostGIS, PgRouting)
- routing in route network
- Apache Spark - traffic/transportation modeling
- 2011 - 2017 **freelancer** - draw maps for orienteering

Awards and committee memberships

- 2019 **Best Paper Award** received at the 5th International Conference on Geographical Information Systems Theory, Applications and Management (GISTAM 2019)
- 2015 **3th place on ACM SIGSPATIAL Cup 2015** programming competition (Seattle, USA) focused on shortest path search
- 2017 - 2021 **Evaluator** for National Accreditation Bureau for Higher Education in the Czech Republic in Earth Science

Skills

Computer

Programming languages: **Kotlin, Java, Scala, Python, Julia, C, JavaScript**
Databases: **PostgreSQL, MongoDB, DynamoDB, ClickHouse**
Geography Information Systems (GIS): **PostGIS, QGIS, GRASS, GDAL, OGR, and others**
Other technologies: **Apache Spark, Linux (Debian, Ubuntu), Terraform, Git, L^AT_EX , WebGL, OpenGL, OpenCL, REST API, GraphQL, High Performance Computing (MPI)**

Other

research - graphs (all kind of shortest path problems), traffic modeling (dynamic traffic assignment, traffic assignment problem), optimization, user equilibrium models, GIS

organization of sports events (volunteer) - one of the key persons for orienteering events between 100 and 2000 participants (20+ events)

transformation of the research into practical software that brings value

Languages

Czech (native), English (C1, technical), Norwegian (Bokmål) (A2)

Hobbies

Orienteering, cross-country skiing, hiking
Club membership: Sportsklubben Freidig