Ladislav Vrbsky

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📍 Belem, PA, Brazil

Data Scientist; Artificial Intelligence (AI) enthusiast;
MSc in CS/AI; Experienced in Software Development;
Multi-cultural blend; Seeking engaging AI projects.

EXPERIENCE

Data Scientist / Machine Learning Engineer
Jan 2019 – Present

Vibe Desenvolvimento (SW dev. company) `[Python, SQL, Spark, Sqoop, Hive, Jupyter, BI tools]`

Data and Big Data tasks at a state bank Banpará, leveraging the Hadoop ecosystem and Machine Learning (ML)

- Created and managed ETL data pipelines
- Lead the transformation to being data-driven, by evangelizing and educating many about Data and ML
- Proactively suggested valuable projects and KPIs and currently delivering concepts
- Co-Configured the Hadoop components in the company
- Will leverage ML to aggregate value using data (Spark, TensorFlow or PyTorch)

Software Developer - Web
Oct 2017 – Jan 2019

Vibe Desenvolvimento (SW dev. company) `[Java, C#, SQL, CI/CD, JSF, JSP, AngularJS, JS, ASP.NET, SVN]`

Internet banking web apps, management systems, RESTful web services for a state bank Banpará

- Developed, improved, maintained a variety of new and legacy systems (mostly back-end)
- Boosted 3x tech support speed by improving automation tool (for 1 frequent issue)
- Crushed high-impact bugs in production
- Reduced from hours to minutes solutions of some team tasks by knowledge of various systems
- Worked in small teams, collaborated with technical requirements team

Applied Artificial Intelligence Researcher (CAPES scholarship)
Jan 2016 – Apr 2018

Operational Research Lab (Electrical Engineering faculty lab) `[Matlab, LaTeX, Git]`

Smart power grid communication optimization research through cell positioning - Related to MSc Thesis

- Implemented a clustering-based topology optimizer for networks w.r.t. communication delay (Open-Sourced)
- Compared clustering algorithms and >50 k-means/model configs, resulting in MSc thesis: *Clustering-driven equipment deployment planner and analyzer for wireless non-mobile networks applied to Smart Grid scenarios*

Junior Software Developer
Apr 2013 – Aug 2014

AgentFly Technologies (Commercial/university startup at Agent Technology Center) `[Java, XML, CVS]`

Large-scale multi-agent project, that models and simulates air traffic control

- Implemented event-oriented collision avoidance protocol for UAVs, a.k.a drones
- Optimized heuristic of route generation by extrapolating the collision-based utility values
- Analyzed 4 heuristics of route generation w.r.t. computational and communication costs, and 4 other metrics

PROJECTS & PUBLICATIONS

- [**ICNSC 2017** (Intl. Conference)] **Clustering techniques for data network planning in Smart Grids**: Determines deployment positions of Base Stations in a network. Compares clustering algorithms.
- **Fraud detection in energy network**: Neural Networks, Decision Trees, Fuzzy Logic, Genetic Algorithm
- **Memetic algorithm for Traveling Salesman Problem**: Genetic Algorithm with local search
- **AI projects**: Transfer learning (TensorFlow), Simple app using TF.js, Color quantization (Matlab)

SKILLS

- **Languages**: Python 2yrs, SQL 2yrs, Java 4yrs, C# 1yr, C/C++ 1yr, Matlab 3yrs, JS | **Eng**, **Por**, **Cze**, Ger
- **Techniques**: Clustering, Neural Networks, Genetic Algorithms, Decision Trees, Graphs, Probability, ...
- **Interests**: TensorFlow, PyTorch, SciKit-Learn, Spark, Reinforcement Learning, Computer Vision

EDUCATION

Federal University of Pará (UFPA) | GPA 3.889
Belem, PA, Brazil

MSc – Applied Computing: Artificial Intelligence
Mar 2018

- **Kansas State University (KSU)** | *MSc period – Computer Science (intl. exchange)*   Manhattan, KS, USA
- **Czech Technical University (CTU)** | *BSc – Computer and Information Science*   Prague, Czech Republic