

# SEBASTIEN ROY

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Data Scientist – AI expert – Advanced Algorithms – C-Level Data Scientist

## SUMMARY OF QUALIFICATIONS

- 12 years of experience in data science, algorithm development optimization
- 20 years of experience in software engineering (Python, Django/flask, C, etc, git, celery, etc)
- Full stack developer (APIs, Databases, web app architecture)
- Devops/linux sys admin experience

## BACKGROUND AND EXPERTISE

### Full Stack Infrastructure

- Digital Ocean and AWS deployment of Django APIs with celery + RabbitMQ
- Django Web App
- Expert Python, bash, configuration management, etc
- Third Party integrations (sendgrid, slack, etc)

### Data Science/Algorithms

- Data gathering, cleanup, validation, reformatting (databases, json, xml, excel, csv, etc)
- Data classification, analysis (automated and manually)
- Display, derived information and insights etc.
- Systems modelling (ex : travel time distance for mutli mode, data-driven business efficiency analysis, etc)
- Ph.D. in physics : Monte Carlo simulation, lots of statistics, math optimization, automated data analysis etc

### Routing and Scheduling Optimization

- Linear Programing (using ortools library from google)
- Column Generation, Shortest Path problems, pareto optimality modeling and analysis
- Constraint programming
- Heuristics and other associated algorithmic tricks

## EMPLOYEMENT HISTORY

- CEO/CTO Lean Systems Inc. scheduling and routing for transportation companies and AI consulting; 2015 - now
- Embedded Software Engineer Innobec and Savoir-Faire Linux; 2013 - 2015
- Senior Operation Research and data science engineer – Ad – Opt/Kronos; 2007 - 2013

## ACADEMIC

- Ph.D. Theoretical Quantum Physics University of Sherbrooke
- M.Sc. Theoretical Quantum Physics University of Sherbrooke

## OTHER

- Techstars NYC winter 2017 cohort.
- Fluent English and French
- <https://www.linkedin.com/in/sebastienroy/>