Sergei Nevedomski

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Summary

Principal Software Engineer with a strong focus on Machine Learning, Data Engineering, and large-scale system design. Known for driving technical strategy, mentoring teams, and delivering high-impact solutions that bridge data science and engineering. Skilled in building scalable ML infrastructure, automating analytics workflows, and guiding cross-functional initiatives from prototype to production. Deep expertise in Python, Spark and cloud platforms. Passionate about solving complex problems with lasting business value and fostering innovation across teams.

TECHNICAL SKILLS

- **Languages and Frameworks**: Python, Spark, Git, SQL, AWS
- **Machine Learning and Statistics Skills**: LLMs, Neural Networks, NLP, Computer Vision, Tree models (XGboost), GLM models, Statistics, Time Series analysis, Linear and Matrix algebra
- **Web development**: Flutter, React, Tailwind CSS, Headless UI, FastAPI
- **Worked with Languages and Frameworks**: Java, C++, noSQL, Django, R

WORK EXPERIENCE

PNC Bank **Feb 2020 - Present**
Principal Software Engineer *Pittsburgh, PA*
Data Engineering / Machine Learning / Modeling

- Built a production-ready LLM-based PII detection tool using NLP techniques and transformer models, enabling secure and compliant migration of sensitive PNC datasets to AWS while meeting regulatory and internal data governance standards.
- Modernized legacy SAS models by migrating them to Python and Spark, resulting in a 60% increase in processing efficiency and seamless integration with AWS data platform.
- Led a cross-functional team spanning Data Science and Engineering, driving the adoption of best practices in model development, reproducibility, and version control using Git, Spark, and Hadoop across enterprise-wide modeling initiatives.
- Designed and prototyped a centralized model monitoring framework leveraging Python and custom performance metrics, standardizing model health checks and enabling consistent performance tracking across the BSAM portfolio.
- Developed modular internal frameworks—including a Python Analytical & Reporting Framework, a ThoughtSpot Data Preprocessing Framework, and a Controls Framework—streamlining development cycles and boosting engineering productivity by 40%.
- Collaborated with stakeholders to identify high-impact ML opportunities in emerging business units, conducting technical assessments that informed long-term AI strategy and accelerated innovation at the organizational level.

PNC Bank **Jan 2019 - Feb 2020**
Sr. Software Engineer *Pittsburgh, PA*
Data Engineering / Machine Learning / Modeling

- Engineered and deployed scalable, production-grade data pipelines using Python, Spark, and SQL to validate, transform, and aggregate ML model outputs—enhancing data integrity and reducing pipeline execution time by 80%.
- Migrated complex statistical and machine learning models from SAS to Python and Spark, utilizing libraries such as pandas, numpy, scikit-learn and XGBoost to improve deployment velocity, reproducibility, and integration with modern data platforms.
- Led and mentored a team of 6 Python developers in an Agile environment, establishing best practices in version control (Git), code reviews, and modular design—resulting in a 30% reduction in technical debt and consistently on-time delivery across projects.

PNC Bank **Apr 2018 - Dec 2018**
Software Engineer *Pittsburgh, PA*
Data Engineering / Machine Learning / Modeling

- Designed and implemented scalable data pipelines using Python, Spark, and SQL to validate, transform, and aggregate ML model outputs in production—resulting in a 80% improvement in time efficiency and a 50% increase in processing efficiency.
- Automated business-critical workflows by applying statistical modeling, tree-based algorithms (e.g., XGBoost), and time series analysis, reducing manual processes by 60% and accelerating decision-making cycles across departments.
- Conducted feasibility studies and exploratory data analyses leveraging NLP and GLM models to evaluate machine learning applications for emerging business units, driving data-driven innovation and enabling strategic adoption of AI solutions.
- Collaborated cross-functionally with data scientists and engineers to optimize model deployment and monitoring using Python, FastAPI, and custom drift detection logic—reducing model latency by 40% and improving anomaly detection in production systems.

Distributor service Inc. **Oct 2016 - Apr 2018**
Data Scientist *Pittsburgh, PA*

- Developed dashboards for executive management using QlikView, SQL, and Advanced Excel, enhancing decision-making processes
- Developed a pricing analysis and management platform using Python, Django, SQL, and CyberQuery, streamlining the review, addition, and maintenance of company pricing by customer and product category levels
- Managed data collection from various sources such as ERP, CRM, WMS, and Analytics platforms, ensuring data accuracy and availability for analysis
- Interpreted data from primary and secondary sources using statistical techniques and provided ongoing reports, enhancing data-driven decision-making (pandas, scikit-learn)

- Performed daily data queries and prepared reports on daily, weekly, monthly, and quarterly basis, improving reporting efficiency and accuracy (Python, SQL, Advanced Excel)

Atritrans, Belsotra, Donado **Jul 2008 - Nov 2015**
Co-founder, CEO, Head of Department *Minsk, Belarus*

- Directed global operations in international freight forwarding, leveraging strategic leadership and operational expertise to streamline logistics, optimize performance, and elevate client experience across diverse markets.

EDUCATION

Belarussian State University **Sep 2003 - Jun 2008**
Master's degree, Economics *Belarus, Minsk*

- **GPA:** 3.8/4.0