Job Description
Senior Full Stack Python Software Development Engineer (SDE)

Summary
Truckmentum is seeking an experienced full stack developer who will be responsible for designing and developing front-end web architecture, ensuring the responsiveness of applications, and back-end programming including data analytics, machine learning, and data management. Truckmentum uses Python as our primary backend technology, including the use of Streamlit as a key element of our front end to accelerate development of web visualization and interfaces, and Snowflake to accelerate our data strategy. These are core requirements for the Full Stack SDE. The full stack SDE will also develop and lead front end web development.

About the Role
As a Full Stack Python Software Development Engineer (SDE), you will report into Truckmentum's development team and work closely with product management. You will define and build client-side and server-side architecture, including use of Streamlit and Snowflake, in addition to other cloud technologies. You will define and build the front-end of applications through appealing visual design, and will define and build well-functioning databases and applications.

Who You Will Work With.
This role will report directly to the CTO who serves as the Head of Engineering and DevOps as well as Technical Program Manager. This role will work with the CTO as well as other engineers, data scientists, and product manager to also ideate software solutions. You will also work closely with Will Payson (CEO/Trucking Science Geek), who has 25 years in trucking and transportation science, and has delivered over $1B annually in data science enabled savings for FedEx and Amazon. You will also work with Tim Liu (CMO/Head of Product), who has 5+ years experience in trucking and transportation, and 20+ years experience defining, delivering and selling customer focused technology innovation.

Responsibilities and Goals
- Develop, high-quality software and reusable components, using an Agile software development approach, integrated testing and structured DevOps practices to ensure delivery of a quality product.
- Apply Python programming language and related frameworks such as Streamlit and Python data science and visualization libraries to within a streamline technology stack.
- Design and implement low-latency, high-availability applications.
- Integrate user-facing elements developed by front-end developers with server-side logic.
- Integrate data storage solutions, including Snowflake.
- Implement security, user login and permissions, and data protection.
- Actively participate in the entire software development lifecycle, building, testing and delivering high-quality solutions.
- Collaborate with Engineering and cross-functional teams to identify and solve complex problems.
- Collaborate with Product Management to help estimate and plan development sprints

Required Qualifications
- 4+ years of experience in software engineering and development.
- 3+ years of experience as a Python Developer with a strong portfolio of projects.
- In-depth understanding of the Python software development stacks, ecosystems, frameworks and tools.
- Experience with front-end development using HTML, CSS, and JavaScript.
- Familiarity with database technologies such as SQL.
- Able to create database schemas that represent and support business processes.
- Able to integrate multiple data sources and databases into one system.
- Understanding of fundamental design principles behind a scalable application.
- Strong unit test and debugging skills.
- Proficient understanding of DevOps tools and processes.
- Excellent problem-solving ability and collaboration skills.

- Solid verbal and written communication skills with demonstrated ability to collaborate across disciplines, geographies, and cultures.
- Ability to work under tight deadlines while being flexible.

Desirable Experience
- Streamlit development experience
- Snowflake development experience
- Experience developing enterprise-grade SaaS products.

Appendix: About Truckmentum….
Just about every sector of the global economy depends on trucking. In the US alone, trucks move 70%+ of all freight by weight (90+% by value) and account for $940 billion in annual spending (globally $4+ trillion per year). Despite this, almost all key decisions in trucking are made manually by people with limited decision support. This results in significant waste. The trucking industry is ripe for digital transformation through Software-as-a-Service and AI.

One of the top barriers to automation and digital transformation is that it is hard to tell if a decision in trucking is good or bad without understanding how it impacts the future. For example, would sending a truck to Chicago vs Miami make it easier or harder for the trucking company to make money in the future? Because trucking companies don't have a way to quantify this, people need to make the key decisions, as experienced people can at least use intuition to weigh between decisions to factor in the issues that, until now, machines couldn't quantify.

However, while automating predictions about how a decision will impact future profits is complicated, it is not impossible. *Truckmentum has solved the problem of quantifying how a trucking decision will impact future profits with automated data science that outperforms people.* For example, we can quantify that it is about $1,600 better per trip for future profits to have a truck in Chicago than in Miami. Our ability to accurately quantify how decisions in trucking impact future profits using available data provides Truckmentum with the required foundation to solve even higher impact problems, and gives us a competitive advantage to digitally transform trucking with science.

We are blessed with a strong industry network in trucking and logistics. Every trucking company we have talked to has been interested in our solution. As our first customer said, "If you can do this, everyone will need it". We are excited to be creating a product the market wants, to dramatically reduce trucking's operating costs and carbon footprint.

Truckmentum is currently a self-funded seed stage venture. We are now working to validate our key data science breakthroughs with customer data, complete initial product definition and confirm product-market fit. We will be raising $4-6 million in either late seed or early Series A funding in March-June 2024 to build our Data Science-as-a-Service technology platform and bring our vision to market at scale.

Our Vision and Culture. The back of our business cards reads "Trucking Science Geeks". A love of trucking, data science and AI is a core part of our culture. We love our problem space, and we believe the problems we are solving are big, complex and important enough to warrant an almost obsessive focus, to enable us to make a disproportionate impact. As part of this, we are committed to bringing "Moneyball Theory" to trucking, to quantify the key variables required to develop great actionable recommendations that increase our clients efficiency and profits, and to measuring and quantifying the impact of our work on our clients' efficiency and profit.

We believe in making a positive impact for our clients, employees, and the business based on our understanding of their needs. Our values drive our culture which is based on transparency, delivering results, empathy, diversity, innovation, and simplification. Curiosity, learning, humility, understanding, and collaboration are critical to our culture.

Our Approach to Technology. We believe that all great technology begins with customer obsession. We believe the right technology approach for our business is to prioritize the rapid development, and iteration of complex data science problems, using Python, Python libraries (e.g., Scikit-Learn, Pandas, Folium), integrated visualization (e.g., Streamlit), and scalable data management and sharing. (Snowflake) as part of a modern cloud-based architecture. We believe in an Agile, lean approach to software engineering, where value is delivered with a structured CI/CD approach, supported by professional software engineering practices, clean architecture, clean code, and continuous testing to reduce rework and increase reusability and extensibility. While we have strong opinions on technology, they are weakly held. We know our technology vision will evolve, and we are open to facts and opportunities to improve our approach in technology (and all things...).