

Job Description

Principal Engineer / Founding Engineer

Summary

Truckmentum is seeking a visionary Principal Engineer to deliver cutting-edge data science and AI solutions to transform the trucking industry. As Truckmentum's Tech Leader, you will be responsible for Tech team recruiting and development, architecture, DevOps and innovations to make data science and advanced analytics an easy, integral part of our client's business processes. Together we will revolutionize trucking, similar to the way the 'Moneyball' approach transformed baseball, unleashing advanced analytics to transform a \$5 trillion global industry.

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 and lost opportunities. The trucking industry is ripe for dramatic change and digital transformation through Software-as-a-Service and AI.

One of the top barriers to date to automation and digital transformation is that it is very difficult to tell if a decision in trucking is good or bad without understanding how it impacts the future. For example, would sending a given truck to Chicago or Miami make it easier or harder for the trucking company to make money in the future? Because trucking companies don't have a good way to quantify this, people end up making almost all key decisions, as experienced people can use at least use intuition to weigh the choices.

But while automating predictions about how a trucking decision will impact profits is complicated, it is not impossible... *Truckmentum has solved the problem of quantifying how individual trucking decisions impact past and future profits with automated data science that outperforms people.* Truckmentum's ability to accurately quantify how decisions in trucking impact profits with available data gives Truckmentum an advantaged position in the race to digitally transform trucking.

Truckmentum is blessed with a strong industry network in trucking and logistics, including informal advisors with great industry reputations and connections, as well as our own personal industry connections. 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".

Truckmentum is currently a self-funded seed stage venture. We are now working to validate our key data science breakthroughs with customer data, and to launch our MVP product to confirm product-market fit, which we will complete shortly. 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". If you don't want that on the back of your business card, then Truckmentum isn't a good fit for you. 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.

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. An early version of our technology resulted in a 5 percent operating margin improvement at one carrier that implemented it (equivalent to a \$200 billion annual profit

improvement if applied globally across the trucking industry).

As part of our shared culture, we believe in making a positive impact for our clients, employees, and business based on our understanding of client needs. Our values drive our culture which is based on transparency, delivering results, empathy, diversity, innovation, and simplification. Curiosity, learning, humility, understanding, and responsiveness are also critical to our collaborative culture.

Our Approach to Technology. We believe that all great technology begins with customer obsession. We are obsessed with understanding our client's needs, opportunities, and processes, and with building our solutions into the rhythm of their businesses. We believe the right technology approach for our business is to prioritize the rapid development, solution and iteration of large scale, complex data science problems, backed by actionable, dynamic data visualizations. Given the importance of data science and data engineering to enable this, we prioritize 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. Given the pace of change in technology, and the need for technology to adapt as companies and code bases mature, we know our technology vision will evolve, and we are open to facts and opportunities to improve our approach in technology (and all things...).

About the Principal Engineer Role. Truckmentum is seeking a Principal Engineer / Co-Founder as acting leader of the technical development and delivery of our Trucking Science-as-a-Service to truckload carriers and shippers. As Principal Engineer, you will:

- Define the company's Tech architecture, culture, DevOps, organization and resourcing.
- Recruit and lead the Tech team, including contract / offshore resources.
- Jointly define and prioritize the Product Backlog Inventory.
- Deliver results (great customer focused software) using Agile and CI/CD.
- Define Truckmentum's technical architecture.
- Lead DevOps and the definition of Truckmentums DevOps practices and tools.
- Support fund raising, product definition and strategic planning.

Applicants for this role should have strong, recent hands on experience with coding and development, with experience leading multiple "two pizza" Tech development teams. Experience building enterprise-grade SaaS products

We anticipate an initial division of time of roughly:

- 25 percent of time defining architecture and Tech R&D;
- 25 percent personally coding and trouble shooting solution to key problems;
- 25 percent recruiting and people managing the tech team; and
- 25 coordinating sprint planning and execution.

Ideal applicants will be able to personally build and deliver great tools, recruit and manage a great, productive Tech team, define and drive best practice DevOps, increasing their investment in Architecture, Roadmapping and Tech leadership as the organization scales.

As Principal Engineer / Founding Engineer, you will receive founder equity and compensation consistent with a Principal Engineer startup role.

Who You Will Work With. As Principal Engineer, you will work closely with [Will Payson](#) (CEO/Lead 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 closely 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. You will also work with our Advisory Board, investors, and key clients. Your team will include software engineers, QA/testers, infrastructure engineers, and business analysts. They will work with data scientists, data engineers, product managers, and visual designers/UX.

Responsibilities and Goals

- Deliver the industry's first and best Trucking-Science-as-a-Service solution.
- Recruit, develop, and manage the Tech team, including contract and offshore.
- Create great software and components both directly and through Tech team leadership
- Design and implement low latency, high availability applications
- Scope and shape the product backlog and sprint commitments.
- Define technical strategy and architecture.
- Build technical infrastructure and tools.
- Maintain highly available applications and services.
- Ensure adherence to data privacy policies.
- Establish and manage technology partnerships.
- Engage with clients and partners to define technical roadmaps.
- Promote a culture of collaboration and excellence as a trusted advisor to our clients and team mates.

Required Qualifications

- Experience in SaaS product development, DevOps, and technical infrastructure.
- Customer obsession.
- Strong sense of ownership and the highest standards.
- Ability to hire and develop top talent.
- In-depth, hands on understanding of Python software development stacks, ecosystems, libraries and tools
- Experience with database technologies, including SQL and no-SQL data systems
- Ability to create and maintain database schemas that represent and support effective business processes
- 8+ years of software engineering experience.
- 3+ years of engineering team leadership experience.
- Proficiency in cloud computing and DevOps.
- Strong interpersonal and leadership skills.
- Exceptional communication skills.
- Agile and quality-oriented mindset.
- Ability to manage ambiguity and provide clarity to team.

Desirable Experience (i.e., great but not required...)

- Primary work location in Eastern or Central Time Zone (Job will include working with resources in India).
- Data analytics, visualization, and data engineering.
- Understanding of the Jobs to be Done framework.
- Entrepreneurial or startup experience.
- Familiarity with key technologies including: Python, Machine Learning Ops, Data Engineering, Streamlit, Snowflake.
- Trucking / Logistics experience. This is our lowest priority "nice to have". Truckmentum has a lot of industry experience and we're eager to share this with the team. We also that believe that as part of Customer Obsession, everyone at Truckmentum should continuously learning with an open mind what is important to our clients (and "already knowing what customers want" isn't necessarily helpful for this...)