Senior Software Engineer

Job description

Role: Senior Software Engineer
Location: Remote
Term: Full-time

About Datakrew

Datakrew is an innovative deep technology company with strong roots in IoT, AI & data security founded by industry veterans and PhDs. We are headquartered in Singapore, with regional offices in Bangalore and Pune. We are venture-backed by leading investors from Japan, Singapore, USA, and India. At Datakrew, we are building a no-code IoT platform with the tools for companies to develop, deploy and manage omnichannel enterprise IoT solutions rapidly i.e., within 48 hours! Secure and robust IoT solutions built on our platform have been deployed in multiple sectors – such as Energy, Manufacturing, Maritime, Buildings, Transportation, etc. The solutions range across asset tracking, condition monitoring, energy management, predictive maintenance, performance warnings, decision insights, etc.

Today, our team has a combined experience of over 100 years in the IoT, AI, and cybersecurity space, and we are excited to grow our family as we embark upon a journey to transform ourselves from an IoT/AI startup to an industry leader within this decade. "By 2030, 25% of the world's IoT data will flow through Datakrew" – this is our goal.

We welcome you to join us in this journey where we will work together to make history! You will be challenged and presented with opportunities to grow, and we will back you even if you fail – because we will count on your attitude more than your skills. We have a diverse, collaborative environment where problem-solving is a team sport and creative solutions are recognized and rewarded. Does this sound like the right team for you? Apply today! #togetherwecan

The Product You Will Work On (MADS)

MADS is Datakrew's flagship product – world's first open-source distributed platform for large-scale IoT applications. It is a no-code IoT enablement platform that brings dashboard, digital twin, analytics, reports and other apps together into one platform. MADS brings high-performance software engineering to IoT and is built using leading software technologies for next-gen IoT applications.

As a **Senior Software Engineer** at **Datakrew**, you will get to work on one or more of the following areas:

- **Concurrency**: MADS must handle multiple activities concurrently like fetching and sending multiple messages from/to multiple devices at the same time.
- **Distributed Operations**: MADS must run on a distributed network of multiple servers in different geographies, coordinating through APIs on a microservices architecture.
- **Scalability**: MADS must scale horizontally as the traffic grows and leverage on the multiple CPU cores of the servers to run parallel threads.
- **Responsiveness**: MADS must maintain a strict time-frame of <100ms to respond to users and devices, even when the servers are flooded with multiple requests.
- **Reliability**: MADS must stay in continuous operation for years without any server downtime or restarts even for system updates through hot-swapping.

Your Roles and Responsibilities

- Design and write programs to improve the availability, scalability, latency, and efficiency of Datakrew's range of products.
- Work with the engineering team to explore and create new design/architectures geared towards scale and performance.
- Participate in code and design reviews to maintain our high development standards.
- Engage in service capacity and demand planning, software performance analysis, tuning and optimization.
- Collaborate with product and experience teams to define and prototype feature specifications.
- Work closely with the infrastructure team in building and scaling back-end services as well as performing root cause analysis investigations.
- Design, build, analyze and fix large-scale distributed systems.

Required Software Aptitude and Qualifications

- 5+ years of overall software engineering experience.
- Programming experience with modern languages such as Elixir/Ruby/Python/Golang etc.
- You should have good experience working with relational and non-relational databases. We use Postgres and Cassandra.
- Good to have but not mandatory working experience with caching tools such as Redis, Queue mechanism setup with RabbitMQ.
- Good knowledge of version management with Git.
- Awareness of TDD.
- CI/CD knowledge would be a huge advantage.
- Will to design and maintain large scale distributed systems.
- Past experience in building complex applications, either by yourself, or as part of a larger team
- Desire (obsessive?) for maintainability.

- Experience of working with cross-functional remote teams in an Agile software development framework.
- Experience in designing APIs with proper documentation.
- Ability to write useful and maintainable tests.
- Good understanding of the common architectural patterns and design principles.
- Solid understanding of how modern web applications work.
- Strong written and verbal communications skills in English to engage a variety of large audiences, internally and externally.
- Strong analytical and reasoning skills.
- Bachelor's Degree or equivalent in any relevant discipline.

Good to have experience with Elixir

It would be amazing if you have some experience working with Elixir Lang.

- You should be aware of idiomatic programming in Elixir, and should have good awareness of concepts such as pattern matching, recursion, and behaviours.
- You should be well versed with concurrency and processes in Elixir.
- You should be hands on with Genservers, Tasks, Agents, Supervisors, and other OTP concepts in Elixir.
- Plus points if you have worked with data processing libraries such as Genstage, Flow and Broadway.

Apply Now!

Different people approach problems differently. We need that. Datakrew is committed to diversity as well as inclusion. We are an equal opportunity employer and committed to the principles of affirmative action. Qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender perception or identity, national origin, age, marital status, protected veteran status, or disability status or any other basis protected by federal, state or local law, ordinance or regulation.