



## **Engineering Product Lead (Foundational Industries)**

Developing and delivering digitisation for foundational and heavy industries.

Full time. Remuneration package negotiable depending on experience and skills.

### **Background**

Synbiosys is a rapidly growing startup based in London. The founders are all Imperial College PhD alumni, and board members include the new (and first) Managing Director for NATO's new accelerator program, DIANA, and a commercial strategy advisor to DARPA.

Our vision is to empower everyone to solve the materials and manufacturing challenges of tomorrow, through the systematic validation of every step.

We build the highest performance toolsets, from cutting edge technologies, to deliver a more agile, efficient and sustainable future for all manufacturers. Through our methodologies and software, the Validation Platform, we can reduce the time and cost to develop, validate and integrate advanced manufacturing technologies into industry, delivering unparalleled value to our customers.

We're currently delivering to industrial metals, aerospace, automotive companies and the US Army. Examples include:

- Increasing throughput on industrial metal processing lines through optimisation and automation.
- Accelerating the evaluation and integration of advanced and sustainable materials into products such as cars.
- Rapidly validating metal additive manufacturing machines to produce spare parts, on-demand, right first time.

We are growing especially in foundational and heavy industries. We are delivering optimisation initially to steel mills and are aiming to expand, firstly into more companies in the steel industry,

and beyond into other industries such as paper, mining and chemical production. We provide the digital infrastructure and data validation capabilities by which optimisation and automation models can be rapidly a) built, b) validated and c) deployed.

The sustainability, resilience and commercial benefits that we can bring to foundational industries through massively increased flexibility and optimisation of large scale material processes is mind-boggling and it truly excites us here at Synbiosys.

## **Job description**

We are looking for an experienced Product Leader to build and lead a delivery team to progress the delivery of our solutions to our foundational industry customers.

You will initially be working with a European steel mill to expand the delivery of our cloud-based models from one of their production lines to the rest in the factory. Your work will bring about a step-change in production efficiency for an energy intensive process. The end objective is to create a global model for the whole factory.

To achieve this you will be working with, and directly reporting to, the founders to build a delivery team for this existing contract. Your team will be working at the hardware/software interface to deliver these contracts and so will require a multi-faceted set of skills from both the engineering and software domains. Your team will:

- Build a physical understanding of the production line. This includes the sensor suite and all the interactions between the SCADA, PLC and HMI systems.
- Determine the digital readiness of a production line. This includes IoT, database and cloud infrastructure.
- Build and execute on strategies to bring a production line to digital readiness.
- Build, validate and deploy optimisation/automation models onto production lines, using the customer digital infrastructure that has been built.

There is a close working relationship between Synbiosys' delivery and commercial teams to ensure that consistent value is delivered for our customers. Going forwards, you will be working alongside the commercial team to develop new opportunities.

- Develop the technical roadmap for feature development and prioritisation.
- Interact with all levels of a manufacturing company from the operator to the CEO.
- Determine ROI and strategies to build a factory-wide optimisation model that incorporates all production line-specific optimisation/automation models.

There will be additional opportunities as Synbiosys grows for initial technical development and technical verification, planning and delivery of these future projects.

You must have a high drive and ability to rapidly learn new technologies, techniques and processes.

## Location / Remote working

The role will be based at our offices near Ladbroke Grove in London, with flexible hybrid and split working available.

## Travel

Up to a week a month outside of the UK should be expected.

## Responsibilities

You will be responsible for:

- Effective prioritisation for development of products and features to deliver maximum value for Synbiosys and our customers.
- Maintaining Synbiosys' knowledge at the forefront of industrial processing, numerical models and cloud computing.
- Developing a team of programmers and engineers to deliver to customers. As team lead, you are responsible for the team's:
  - Productivity and timeliness.
  - Continuous professional development.
  - Team cohesion and welfare.
- Project managing the delivery of Synbiosys projects to customers.
  - Quality assurance of products
  - Budgeting (time and money)
- Liaising with Synbiosys executives to set technical strategy.
- Executing on Synbiosys' technical strategy.
- Working closely with the foundational industries strategy lead to shape future products from their commercial insights and inform them of technical developments which could be commercially exploited.

## Duties

You will:

- Liaise with executives on the foundational industry vision and strategy, and execute the technical requirements of that strategy.
- Liaise with the foundational industry strategy lead on opportunity development and prioritisation.
- Provide salient points on technology development to Synbiosys executive through meetings and concise presentations.
- Lead, line manage and project manage the engineering delivery team.

- Providing clear and concise instructions to engineering teams.
- Determining the need for training and talent development.
- Leading on review processes: performance reviews and project reviews.
- Supporting and empowering Synbiosys staff.
- Build and maintain relationships with all relevant customer stakeholders.
- Employ contractors where appropriate to augment project delivery.

## Skillset Requirements

### Essential Skillset and Experience:

- A physics or engineering background.
  - MSc or equivalent is a minimum.
- Previous experience in project managing and delivering complex engineering projects.
- Previous experience in line management.
- Proven leadership skills, including the ability to mentor, guide, motivate and empower team members.
- Delivery of engineering projects with third party engineering contractors and customer employees.
- Presentation and/or public speaking proficiency. You must be able to easily switch explaining complex information to technical and non-technical audiences.
- Show a track record in understanding and learning the fundamentals of new science and new techniques quickly.
- Proactive in learning new skills as requirements change.
- Technical writing proficiency.

### Desired Skillset and Experience:

- Ability to work on multiple projects in various stages simultaneously.
- Experience in projects on digitisation (such as implementing automation software onto a production line) or that involved digital technologies such as, additive manufacturing.
- Previous experience in building an engineering delivery team.
  - Ideally this would include modellers and software developers.
- Experience in foundational industries such as steel, paper, cement, ceramics or mining.
- Experience on PLC, SCADA and HMI systems, and process equipment and plants.
- Experience in continuous improvement and/or internal change management.
- PhD in applied physics or engineering.
- Experience in modelling. This can be physics-based, reduced-order, machine learning or otherwise.
- Experience in software DevOps and cloud architecture.
- Relevant training and/or certifications as an Engineering Manager.

## **Working at Synbiosys**

We're a dynamic, happy and hugely supportive team. We give everyone the space to think and operate independently, and provide a high level of freedom and accountability. We don't track time spent working, and instead focus on milestones and keeping to delivering them on time. How you organise yourself will be up to you.

We support and push for personal and professional developments and will happily support you in the form of building up a library of reading material and contributing to development courses.

We're committed to a good work/life balance, and there is the opportunity to enjoy regular company socials (we are close to Westfield, Portobello Market, etc). Some of our team members' hobbies are climbing, rocketry, trampolining, skydiving, reading and gaming.

Synbiosys celebrates and supports diversity, and is committed to promoting equal opportunities in the workplace. Every job applicant, employee or worker will be treated fairly and equally with dignity and respect regardless of age, disability, gender reassignment, marital or civil partner status, pregnancy or maternity, race, colour, social class, nationality, ethnic or national origin, religious belief, union membership, political opinion, sex, sexual orientation or any other protected characteristic.

We encourage interested applicants who do not meet all of the requirements to still apply as we consider each candidate on a case-by-case basis.

## **How to Apply**

If you are interested in this position, please email your CV and a short cover letter to [jobs@synbiosys.co](mailto:jobs@synbiosys.co), with the subject title "Engineering Product Lead", and we will be in touch.