



Midsummer Energy Ltd
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Application pack - Senior Back End Developer

At Midsummer, we're passionate about reducing carbon emissions, and from humble beginnings we have grown to be one of the biggest players in the distribution of renewable energy products such as solar PV, battery storage, and heat pumps in the UK and Ireland.

Much of our growth has been driven by Easy PV, the design software we have developed that makes it extremely easy to design and specify solar PV systems. It's the most popular PV design software in the UK, with more than a million projects created. We're replicating that model in the nascent market for heat pumps with our heat pump specification tool, Heatpünk. There are huge opportunities (and challenges) ahead as we extend the capability of our existing tools and build new ones.

We're looking to build on our success so far, expanding our development capability and recruiting further to build a team that is committed to enabling a better future powered by renewable energy.

On the back end most of our development happens in node.js. We have some legacy PHP code but we are gradually retiring it although you might still have to dig into it from time to time. Some microservices that we use are written in Python, and we increasingly use Rust for parts of the code base where we need very high performance. We use both SQL and no-SQL databases. Experience in any of these technologies would be useful, but primarily in developers we value initiative, the ability to grasp unfamiliar concepts and systems quickly, a positive attitude and a collaborative approach.

Working at Midsummer will give you an opportunity to work in a friendly, growing company that is playing an important part in the energy transition. We hope we have piqued your interest. Read on for more details!

Andy Rankin,
Managing Director, Midsummer



The role



You will join our team of developers working on the next generations of Easy PV and Heatpünk, our web tools for designing PV and heat pump systems. As a senior developer in the team you will manage and mentor some of our younger developers - so we're looking for someone who is not just an excellent developer, but a great leader too. Some of the areas you will work on are:

- **API development.** We are moving lots of functionality into our API, built on node.js. You will develop new endpoints, ensuring maintainability and security are at the forefront of everything we build.
- **Database and data management.** We have increasingly large amount of data to be stored and managed. You will work with the systems administrators to ensure that we do this in a robust, secure fashion.
- **Image recognition models.** We use image recognition for functionality such as detecting obstructions on roofs. This is a rapidly evolving, complex field and you'll need to keep up with developments and make sure the team are taking the best approach.
- **Algorithms and deep logic.** Some of what we do needs solutions to complex mathematical and logical problems. You will need to get your head deep into Rust to write code to come up with efficient algorithms.
- **Management and mentoring.** We have a bright, enthusiastic team, but it is a relatively young one that would benefit from working alongside and learning from a colleague with a little more experience.

The role is based in our offices in Milton, on the outskirts of Cambridge.



About you



You are a software developer with experience in writing modern web applications. You relish a challenge, and enjoy working in a team.

You have relevant experience as a full stack or back end developer which you are keen to share with younger members of the team - but you are also keen to develop your own career further and love to get to grip with new code and explore the boundaries of what you can create.

You are passionate about building a low-carbon energy system in the UK and you share our values around reducing consumption and building a fairer, more equitable world.

You have good interpersonal skills, and are good at both working in a team and in taking the initiative and achieving outcomes independently. You are keen to help other members of the team to develop through code reviews and mentoring. You present a friendly but professional face to both colleagues and customers.

You have good attention to detail whilst keeping track of the bigger picture, are thorough, and can easily pick up new systems and practices.



What we offer

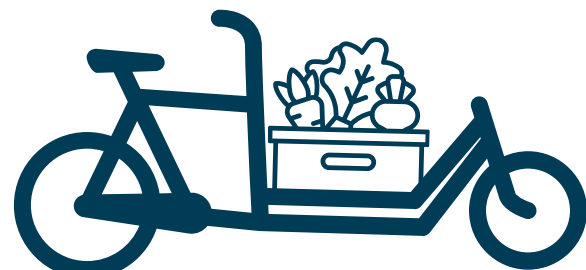


You'll be joining a young, dynamic company with positive values that is aiming to position itself as the leading distributor of renewable energy systems in the UK. As a software developer you will be joining a division that we see as crucial to the success of the company, and with enormous potential for growth. This will be a challenging but fulfilling role.

The position is based in our offices neighbouring Milton Country Park on the outskirts of Cambridge. We are open to some degree of flexible working - and there are times when working from home can allow you to get your head down and complete tasks free from distractions - but we believe it is best to see our colleagues face to face on most days so you will be expected to be largely based in the office.

Salary is negotiable and will depend on your experience. We aim to be competitive. In addition to base salary we have a policy of sharing a proportion of the profits of the company amongst long-term employees.

You won't get a company car - we'd rather encourage people to get on their bike or take public transport. But you do get a free bag of delicious, fresh, locally-grown organic veg every week.



Our Story



2005



2015



2023

Midsummer began life in the front room of a narrowboat, when our founder started selling solar panels to fellow boaters.

Sticking to our roots

We've grown through 7 ever-larger warehouses since then and diversified what we do - but an important part of our business remains the supply of off-grid systems to customers who need power away from the national grid.

Growing branches

With the introduction of the Feed-in Tariff in 2010 we began installing and supplying larger grid-connect solar PV systems. Today, the distribution of solar PV and battery storage accounts for the majority of our £125M annual turnover.

Planting seeds

In 2019 we opened a subsidiary on the outskirts of Dublin. Our team have gone from strength to strength, and have just moved to a larger warehouse. Recently we also opened another satellite warehouse in Glasgow.

Software - the secret of our success

We've written our own PV design software that makes designing solar power systems incredibly easy. It's used by installers and manufacturers in the UK and internationally.

We're developing software for designing heat pump systems too. Heat pumps are the future of heating, and we want to be at the forefront of their deployment in the UK. They will be an important part of the next chapter of our story!

Our values



It has never been our aim simply to make a profit. We want to make a positive impact on the world around us too. This is what we stand for.

Eliminating fossil fuels

We are passionate about moving as swiftly as we can to eliminate fossil fuels from electricity generation, heating and transport. We only sell products and systems that further that aim.

We are also working to reduce fossil fuel use in our own operations. We have solar arrays on our Milton office and our warehouse in Glasgow. We help our employees to keep their own footprints low by encouraging cycling and walking over car use.

Reducing consumption

Over-consumption is at the heart of many of the environmental problems that the world is experiencing. Most businesses operate a business model which is designed to encourage consumption. We want to be different.

We sell solar PV systems that greatly reduce the amount of energy that properties need to import, and we sell heat pumps that use less primary energy (and from less damaging sources) than the fossil fuel based heating systems that they are replacing.

We don't sell disposable items. All the products that we sell are designed to last for many years. Many of the solar panels we sell have a 30 year warranty.

We try where we can to reduce consumption in our own operations. We re-use a lot of the packaging that products arrive in.



Putting people and planet before profit

We believe that businesses have a bigger responsibility to the planet, and to their employees and the communities they operate in, than they do to their shareholders.

We are a successful business. Some of our annual profit is returned to our employees through a staff profit share scheme. We also have a community fund which donates to socially beneficial and sustainable projects in the community. Almost all the remaining profit is reinvested into the business - very little is paid out in shareholder dividends.

We believe in reducing the gap between rich and poor. We pay well over the living wage to all our employees, and our profit share scheme is equitable, so that all employees, from the most junior to the most senior, share equally in the rewards when the company does well. For senior staff we aim to pay competitive salaries, but we don't believe in excessive executive pay.

We believe healthy employees are happy employees. We work with local organic growers to provide all our employees with a vegetable box each week.



Leadership team



Andy Rankin

Founder

A former climate scientist who started a solar company from his off-grid home 15 years ago. Andy likes to build things from scratch, whether that's companies, houses, solar farms, software or freight bikes.



Jamie Vaux

Commercial Director

An environmental business enthusiast who went looking for a company to throw his idealism at, Jamie has spent 10 years chasing sales and building the Midsummer team. Out of the office you'll find him lifting something heavy or cooking.



Lowri Goodyer

Sales Director

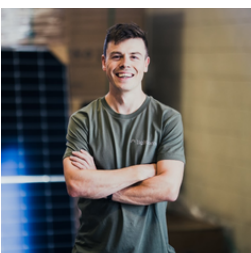
A fellow eco-crusader, Lowri heads up UK sales - and can be found climbing, surfing, running, snowboarding or gardening when she wants a rest!



Tom Livesey

Purchasing and Partnerships Director

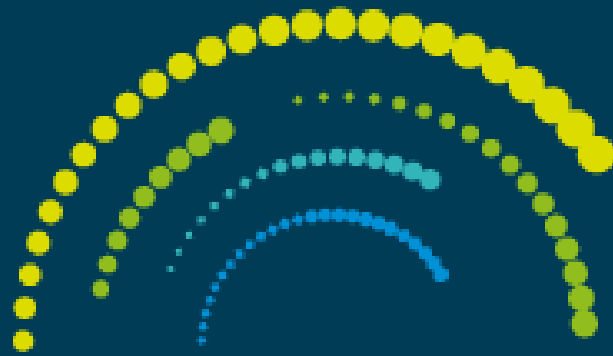
Tom's seismic product knowledge is only bettered by his knowledge of craft beers and fantasy football tactics. He leads our resellers and purchasing teams.



Tom Kemsley

Scotland manager

Tom joined our graduate scheme green out of university. Although he subsequently tried to escape, even in New Zealand he found the magnetic pull of Midsummer drawing him back. He heads up our office in Glasgow.



MIDSUMMER

2022 Distributor of the Year - Solar & Storage Live Awards

"I can't imagine a job I'd love more or a company I could be more committed to. Every single day we're moving renewables forward and I'm surrounded by a great bunch of people helping to do it."

Jamie Vaux, Commercial Director



Easy PV

Solar design made simple

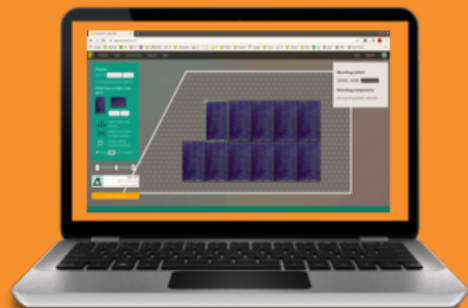
We used to install solar PV systems ourselves - and found that we had to use 5 or 6 different software packages to complete a full design.

Every mounting system, every inverter brand, had their own design tool - and then you had to use spreadsheets and word processors to pull everything together and create a nicely formatted quote.

We shoehorned a design package together that did everything - and saved ourselves a lot of time and wasted effort!

When we gave up installations to concentrate on distribution, we realised our design tool was actually one of our greatest assets. We put a huge amount of effort into improving it and making it available to our distribution partners. It's now used by hundreds of people every day to design PV systems. And because it connects seamlessly to our e-commerce website, it makes it easy for users to purchase from us. We have seen our sales grow enormously as a result.

- Creates 3D model buildings from detailed elevation data and aerial imagery
- Automatically create solar array layouts
- Designs the mounting system and undertakes structural calculations
- Selects appropriate inverters and undertakes stringing calculations
- Specifies electrical components
- Creates a schematic
- Produces shading & yield calculations
- Generates a professional quote and technical report
- Undertakes financial projections
- Auto-completes commissioning forms
- Connects to our websites for rapid ordering



30,000

designs a month
(and growing rapidly)

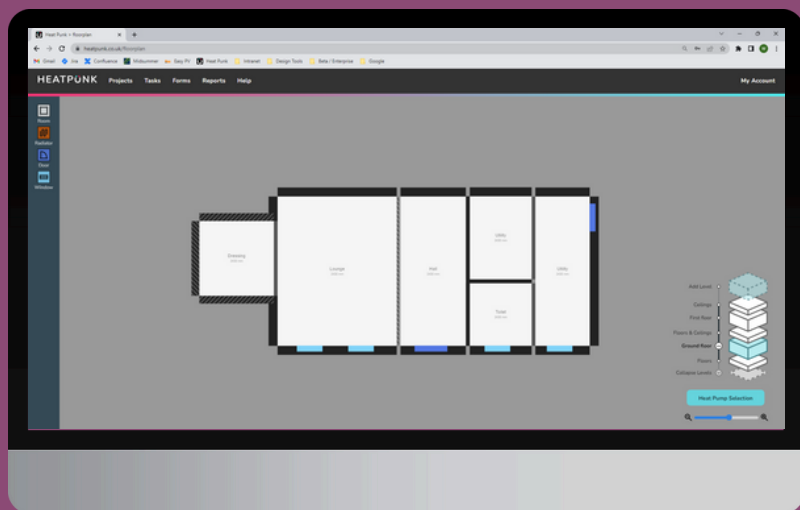
easy-pv.co.uk

HEATPÜNK

We've recently released a new tool that allows installers to survey properties and design heat pump systems.

Building on the web technology we used to create the roof editor for Easy PV, we've created a floorplan editor that makes it extremely easy to draw a house to scale and undertake detailed room-by-room heat loss calculations.

The software automatically selects the optimum heat pump and shows which rooms may need upgraded radiators to work at the relatively low flow temperatures that a heat pump produces.



Heat pumps are the future of heating, We're at the beginning of a transformation of the entire heating industry, and our software will be a big part of that. There are exciting times ahead!

heatpunk.co.uk