Midsummer Energy Ltd
Cambridge Road Industrial Estate
Milton
Cambridge
CB24 6AZ

Application pack - Graduate Software Design Engineer

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 UK in the distribution of renewable energy products such as solar PV, battery storage, and heat pumps.

Alongside our wholesale business, we operate a software team that has built platforms for designing solar PV and heat pump systems (Easy PV and Heatpunk) and an app (Smug) that helps batttery users optimise their systems for use with time-of-use tariffs and access electricity flexibility markets to help support the grid when electricity is constrained. We're innovating fast, and we've got lots of ideas for new products and functionality.

AI is changing the way that software design works - but an eye for a good design and intuitive user interfaces is still vital in building great products. In fact the specification of how the software should look and behave has arguably become more important than writing the code. As a design engineer in our software team you will use tools like Claude to help us design mock-ups and prototypes for new functionality in our software applications. You will work closely with technical colleagues and users to specify features, and with the software developers as they deliver them. You will also test work thoroughly to ensure it meets the requirements before it is released.

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

As a Graduate Software Design Engineer you will help to specify and design new functionality for our software applications, including our web tools for designing PV and heat pump systems, our battery optimisation app, and our e-commerce websites and internal systems. The work will cover:

- **Software specification.** You will talk to colleagues and users to understand their needs, and you will draw up specifications for software that will meet those needs.

- **Design.** You will create designs and prototypes that are visually appealing and that provide clear and accessible controls and outputs.

- **Delivery.** You will assist the software developers as they build out projects, dealing with the questions and changes that arise from the build process.

- **Quality assurance and testing.** You will review completed work yourself, and arrange end user testing, to ensure it meets the original specification and is delivered to a high standard. If necessary you will arrange for revisions to be made or further functionality to be added to make sure that the software is as effective as it can be.

The role is based in our offices in Milton, on the outskirts of Cambridge. We find teams work better when they see each other regularly, and communication with your colleagues will be very important in this role. So while occasional days of remote or hybrid working might be possible, you should expect to be in the office most working days.



About you

You’re a great team worker, have a good eye for design, and understand how software is designed and built. You want a career that will make a difference: you'd like to put your skills to use to make the planet greener as well as earn your keep.

You’re a good people person. Liaising effectively with colleagues is an important part of this role. You listen, you ask the right questions, and you communicate your thoughts and intentions well both in person and in writing.

You've got a passion for good design and would love to spend your days building software that is intuitive, enjoyable to use, and effective in meeting the needs of users.

You are adept at using modern tooling, particularly AI-assisted design and code generation tools.

You are bright, academically successful, and quick at picking up new skills and concepts. You will be expected to rapidly learn about the systems and products that we supply and apply your learning to your work. Some prior knowledge of renewable energy systems would be an advantage.

The post is particularly suitable for recent graduates or those about to graduate, but candidates who already have experience of working in software development are also welcome to apply. Depending on experience a higher salary may apply.



What we offer

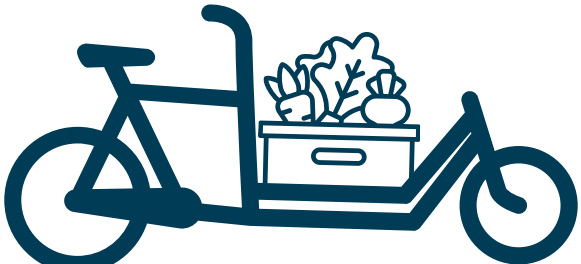
You'll be joining a young, dynamic company with positive values that is aiming to position itself as the leading distributor of renewable energy systems in the UK. As a software design engineer you will be joining a division that we see as crucial to the success of the company, and with enormous potential 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 believe it is best to see our colleagues face to face on most days so this is an office-based role.

Starting salary is usually £38K for our graduate software engineers. If you have some prior experience working in software development a higher salary may be negotiable.

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.

We can be flexible on start dates. We are open to a summer 2027 start for candidates who are completing their studies at the moment; equally if you are available immediately we'd love to hear from you too.



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 > £100M 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. We have since 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.



Our values

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

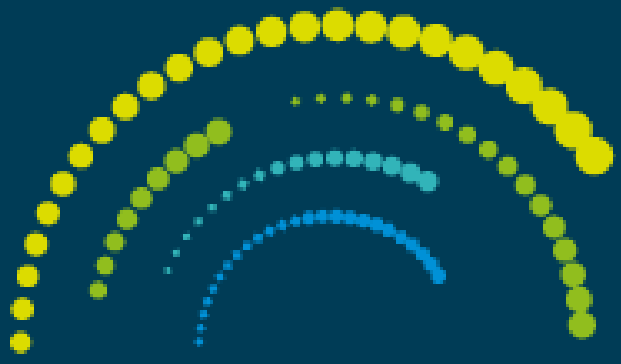
A fellow eco-crusader, Lowri heads up UK sales - and can be found climbing, surfing, running, snowboarding or gardening when she wants a rest!



Tom 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

"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

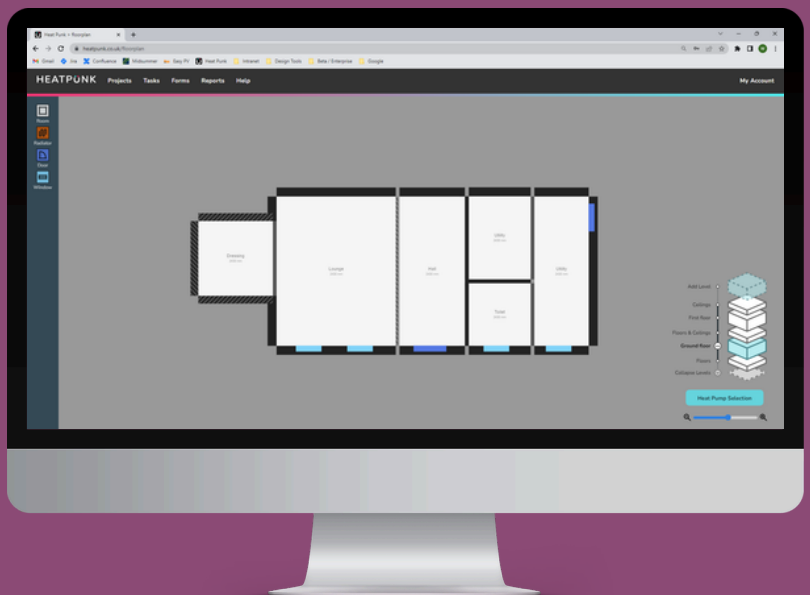
HEATPUNK

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

smug

Feel good about your energy

Smug is the free appthat runs yourhome battery for you. Optimise your battery. Save £100s on your bills.

Free to use | **No sign-up fees** | **One-toggle setup**



The Smug Bug in-home display

How it works

1

Connect your battery

Link it through your battery's cloud account, or with a Smug Bug on your home WiFi.

2

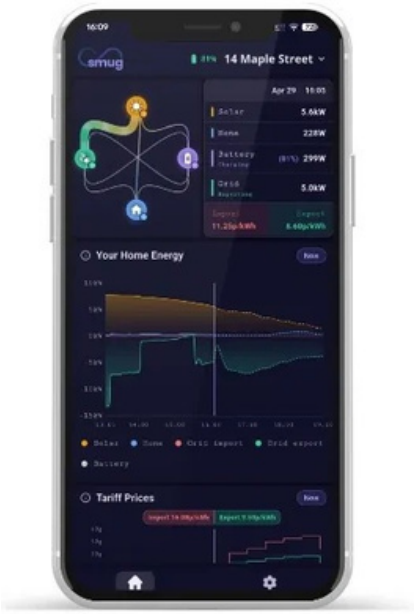
Add your tariffs

Tell Smug your import and export prices, so it knows when power is cheap and when it's dear.

3

Turn on optimisation

Flip one toggle. From then on Smug charges and discharges your battery for you.



Smart control, done for you

Learnsyourhome. Machinelearningbuildsapicture of how and when you use energy.

Forecasts your solar. It predicts tomorrow's generation from your past data and weather models.

Charges and discharges at the right time. Less expensive import, more export income, on time-of-use tariffs.

Smug Flex. Let your battery earn from flexibility markets, for a small share of what it makes.

Works with GivEnergy® FOX ESS Eleven solaredge SIGENERGY

smug

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