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

Application pack - Graduate Software 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 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.

We're expanding our software development team, and we're looking for a couple of bright, enthusiastic, budding developers who are comfortable with modern AI-driven software development practice to join us - people who would like to put their software skills to use to build a greener future.

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 software team, working on the next generations of Easy PV and Heatpunk (our web tools for designing PV and heat pump systems), Smug, (our battery optimisation app), and our internal systems. Some of the areas you will work in are:

- **Project specification**. With AI tools to write code more time is spent by engineers in writing clear specifications. Where that is done well, the code will soon follow.

- **Complex user interfaces**. Much of the magic in Easy PV and Heatpunk happens in 2D and 3D graphical editors. You'll need to get your head round complex geometry problems.

- **Back end code**. You will work with MySQL and MongoDB databases and with a wide variety of languages, from node.js to Python via some legacy PHP, Rust for performance, C++ for firmware, a variety of languages for mobile apps.

- **Testing and infrastructure**. Our customer base is rapidly expanding. We have to manage ever-increasing volumes of data and ensure new features are thoroughly tested in different environments before deployment.

- **AI integration**. We use AI heavily for coding and we are in the process of embedding it in our applications in myriad ways.

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 days.



About you

You’re naturally talented at software development, thoughtful, and creative, and 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've got a passion for good software and would love to spend your days building applications that are intuitive and enjoyable to use.

You are comfortable with AI-driven development and value the increase in productivity that it brings. You are good at writing effective prompts and getting agents to do the bulk of the work - but you also take ownership, and know when to step in to keep the development process heading in the right direction. You take pride in what you do, and consistently deliver work of a high standard.

We value initiative. We like people who can work independently and don’t need to be micro-managed.

The post is particularly suitable for recent graduates or those about to graduate, but we are open to applicants who are changing career or have a small amount of prior experience in coding.



What we offer

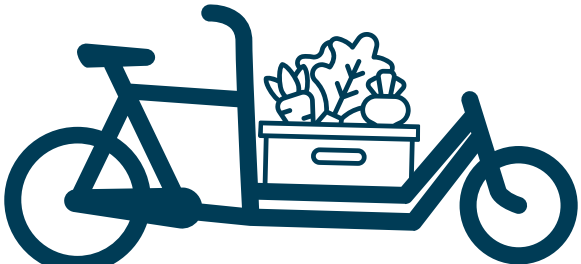
You'll be joining a young, dynamic company with positive values that is aiming to position itself as the leading distributor of renewable energy systems in the UK. As a software design engineer you will be joining a division that we see as crucial to the success of the company, and with enormous potential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

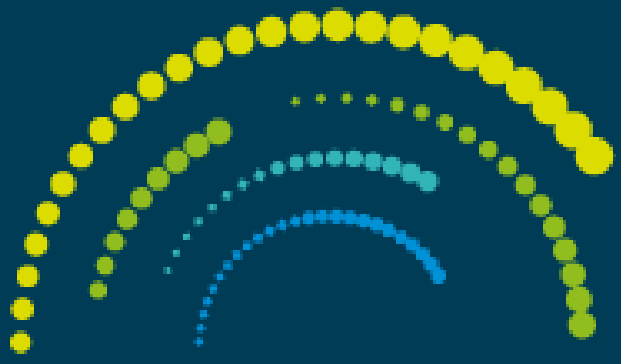
A fellow eco-crusader, Lowri heads up UK sales - and can be found climbing, surfing, running, snowboarding or gardening when she wants a rest!



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

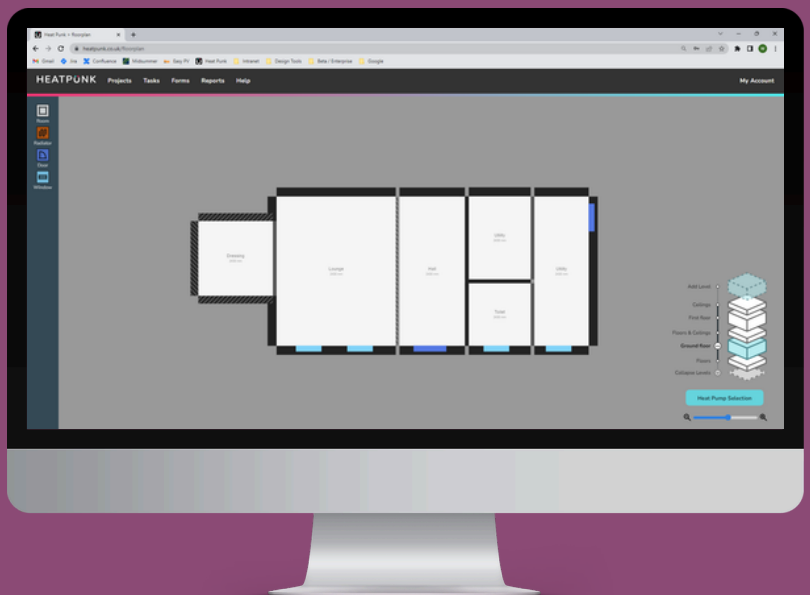
HEATPUNK

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 app that optimises your home battery, saves you hundreds on your bills and even pays you on top of that to support the grid!

Free to use | **No sign-up fees** | **Easy 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

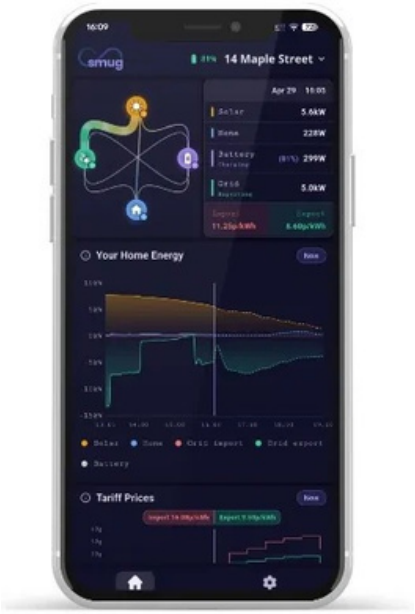
Add your tariffs

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

- **Learns your home.** Machine learning builds a picture of how and when you use energy.
- **Forecasts your solar.** Smug 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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