Pixelmatters

pixelmatters_ wearepixelmatters pixelmatters

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SINF
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FEUP

🔍 Who we are

Pixelmatters is a ~6 year old **digital product Design and Development** company based in Porto 🇵🇹 and working in-house, with clients worldwide.

🚀 Our mission

To create top-notch digital products that make make people's life easier, everywhere, everyday.

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1st office

17 / 10 / 2013

—

Team-size: **1**

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5th office

Today

Current team-size: **40**

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About our projects

A team of ~30, working mostly on three types of projects:

- **Marketing / Corporate websites;**
- **WebApps;**
- **Mobile Apps.**

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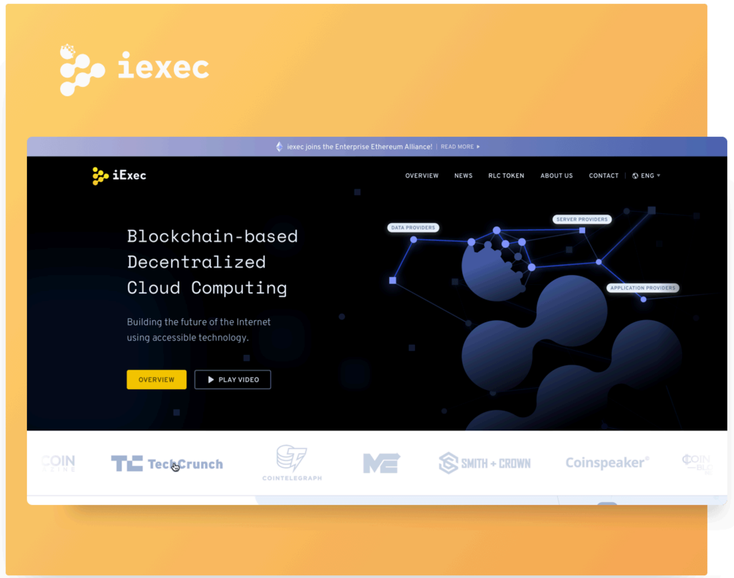
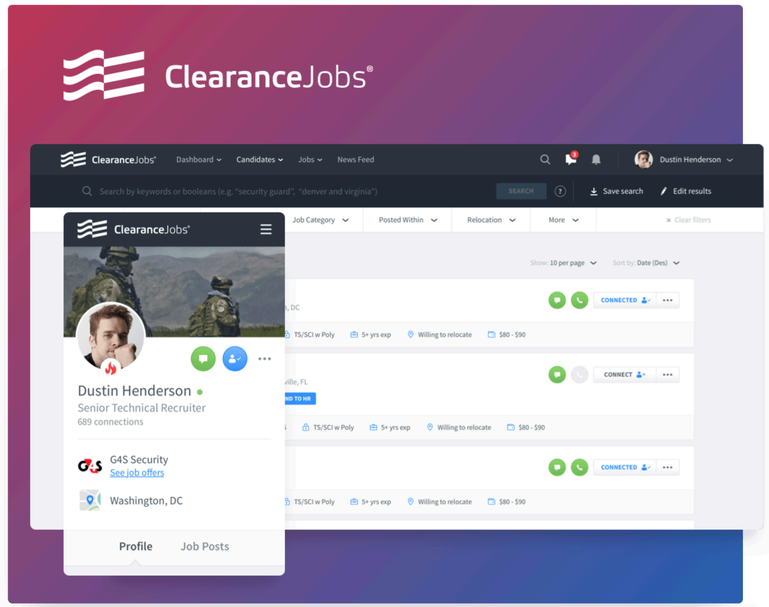


Blockchain Decentralized Cloud Computing →

Corporate Website

Competitive Gaming Platform →

iOS App | Android App



Security Jobs Network →

WebApp

Lots of **diversity** within the projects due to the nature of the business.

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About our clients

Majority of our clients are **US-based** 🇺🇸 technology companies that, normally, have their own design, development, management and marketing teams internally. **We're their partners.**

Some of these companies are backed by well-known VC firms such as:

ANDREESSEN HOROWITZ SEQUOIA greylockpartners. G/

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We’re an extension of our client’s team

Our goal is always to create **long-lasting relationships**.

To be the Client’s **partner**, and not only a services provider, for all things related with Design, Development and Management.

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About our

mindset

Communication

Communication is the **key and central part of everything.** Our team has direct contact with the client - no “middle-man”.

Tools and **technologies** we work with.

Basecamp
slack
Pixelmatters
Trello
GitHub
Bitbucket
Jira
Confluence

Sketch
InVision
Zeplin

Vue.js
React
Swift
Kotlin
React Native
node.js
python
django CMS
WordPress
Gatsby

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About our culture

Quality driven, in both design and development.

No-bullshit communication.

Honest feedback is key to evolution.

- **Work from Home** days available
- Friendly **student-worker** policy
- **Performance Reviews** regularly
- Always listening to your **needs and ambitions**, adjusting projects/clients/technologies

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Inspiring environment and great location **@ Aliados**

- **Teamatters:** our yearly retreat.
- **Designmatters, Codematters:** internal event, once every 2-weeks to foster the team to share knowledge internally.

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To finish

Careers

- **UX/UI** Designers
- **Front-End** Developers
- **Mobile** Developers
- **Full-Stack** Developers
- **Technical** Project Manager(s)
- **Delivery** Manager(s)

Pixelmatters means: do things well.

Codematters

React Hooks

About

Hooks

Hooks were **released in React 16.8**

~February 2019

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Stateful components without writing a class

Backwards-compatible which allow a

Gradual Adoption Strategy

About the

Motivation

It's hard to **reuse** stateful logic between components without hooks. To do so, there are some techniques as:

👉 Render Props

👉 Higher-Order Components

Complex components become hard to understand

Classes confuse both people and machines

👉 People must understand how **this** works in Javascript.

👉 Classes don’t minify very well, they make hot unreliable, ahead-of-time compilation problems, etc.

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About the Rules

Only Call Hooks from **React Functions**

👉 Call Hooks from React function components

👉 Call Hooks from custom Hooks

Only call Hooks at the **Top Level** of your function

👉 Don’t call Hooks inside **loops**, **conditions**, or **nested functions**.

Let’s see some

Code

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```jsx
import React from 'react';

export default class TodoList extends React.Component {
    constructor() {
      super()
      this.state = {
        inputValue: ''
      }
    }

    render() {
      return (
        <>
          <input
            type="text"
            value={this.state.inputValue}
            onChange={e => {
              this.setState({
                inputValue: e.target.value
              })
            }
          />
        </>
      )
    }
}
```

“useState” Hook

***useState** Hook allow us to **declare a state variable** and provides us a **method to update** the it.*

```
const [inputValue, setInputValue] = useState('');
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“useState” Hook

__useState__ Hook allow us to __declare a state variable__ and provides us a __method to update__ the it.

```
const [inputValue, setInputValue] = useState('');
```

```
this.setState({
  inputValue: 'new value'
})
```

“useState” Hook

__useState__ Hook allow us to __declare a state variable__ and provides us a __method to update__ the it.

```
const [inputValue, setInputValue] = useState('');
```

```
setInputValue('new value')
```

```jsx
import React, { useState } from 'react';

export default () =>  {
    const [inputValue, setInputValue] = useState('');

    return (
      <>
        <input
          type="text"
          value={inputValue}
          onChange={
            event => setInputValue(event.target.value)
          }
        />
      </>
    )
}
```

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```jsx
import React from 'react';

export default class Input extends React.Component {
    constructor() {
      super()
      this.state = {
        inputValue: ''
      }
    }

    render() {
      return (
        <>
          <input
            type="text"
            value={this.state.inputValue}
            onChange={event =>
              this.setState({
                inputValue: event.target.value
              })
            }
          />
        </>
      )
    }
}
```

```jsx
import React, { useState } from 'react';

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          onChange={
            event => setInputValue(event.target.value)
          }
        />
      </>
    )
}
```

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```jsx
import React from 'react';

export default class Component extends React.Component {
    constructor() {
      super()
      this.state = {
        inputValue: ''
      }
    }

    componentDidMount() {
      document.title = this.state.inputValue
    }

    componentDidUpdate () {
      document.title = this.state.inputValue
    }

    render () {
       return (
         <>
           <input
             type="text"
             value={this.state.inputValue}
             onChange={event ⇒
               this.setState({
                 inputValue: event.target.value
               })
             }
           />
         </>
       )
    }
}
```

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“useEffect” Hook

useEffect *is a lifecycle Hook for that combines* ***componentDidMount***, ***componentDidUpdate*** *and* ***componentWillUnmount*** *lifecycle methods.*

```
const [inputValue, setInputValue] = useState('')
useEffect(() => {
  // componentDidMount and componentDidUpdate

  return () => {
    // componentWillUnmount
  }
})
```

“useEffect” Hook

useEffect *is a lifecycle Hook for that combines* ***componentDidMount***, ***componentDidUpdate*** *and* ***componentWillUnmount*** *lifecycle methods.*

```
const [inputValue, setInputValue] = useState('')
useEffect(() => {
  // componentDidMount
  return () => {
    // componentWillUnmount
  }
}), [inputValue]) // componentDidUpdate called only when “inputValue" changes
```

“useEffect” Hook

__useEffect__ is a lifecycle Hook for that combines __componentDidMount__, __componentDidUpdate__ and __componentWillUnmount__ lifecycle methods.

```
const [inputValue, setInputValue] = useState('')
useEffect(() => {
  // componentDidMount

  return () => {
    // componentWillUnmount
  }
}, []) // componentDidUpdate is not called
```

```jsx
import React, { useState, useEffect } from 'react';

export default () =>  {
    const [inputValue, setInputValue] = useState('')

    useEffect(() => {
      document.title = inputValue
    }, [inputValue])

    return (
      <>
        <input
          type="text"
          value={inputValue}
          onChange={event => setInputValue(event.target.value)}
        />
      </>
    )
}
```

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```jsx
import React from 'react';

export default class Component extends React.Component {
    constructor() {
      super()
      this.state = {
        inputValue: ''
      }
    }

    componentDidMount() {
      document.title = this.state.inputValue
    }

    componentDidUpdate () {
      document.title = this.state.inputValue
    }

    render () {
       return (
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          <input
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    }
}
```

```jsx
import React, { useState, useEffect } from 'react';

export default () =>  {
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    useEffect(() => {
      document.title = inputValue
    }, [inputValue])

    return (
      <>
        <input
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import React from 'react';

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      document.title = this.state.inputValue
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                inputValue: event.target.value
              })
            }
          />
        </>
      )
    }
}
```

34 lines

```jsx
import React, { useState, useEffect } from 'react';

export default () =>  {
    const [inputValue, setInputValue] = useState('')

    useEffect(() => {
      document.title = inputValue
    }, [inputValue])

    return (
      <>
        <input
          type="text"
          value={inputValue}
          onChange={event => setInputValue(event.target.value)}
        />
      </>
    )
}
```

19 lines

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“useReducer” Hook

useReducer *allow us to manage complex states. Everyone with Redux experience will notice similarities with the syntax of this Hook.*

```
const todosReducer = (todos, action) => {
  let newTodos = todos
  switch (action.type) {
    case 'add':
      newTodos = [...todos, { text: action.text, isCompleted: false }];
      break
    case 'done':
      newTodos = [...todos];
      newTodos[action.index].isCompleted = true;
      break
    case 'undone':
      newTodos = [...todos];
      newTodos[action.index].isCompleted = false;
      break
    case 'remove':
      newTodos = [...todos];
      newTodos.splice(action.index, 1);
      break
    default:
      return newTodos
  }

  return newTodos
}
```

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“useReducer” Hook

useReducer *allow us to manage complex states. Everyone with Redux experience will notice similarities with the syntax of this Hook.*

```
const todosReducer = (todos, action) => {
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      newTodos = [...todos];
      newTodos[action.index].isCompleted = true;
      break
    case 'undone':
      newTodos = [...todos];
      newTodos[action.index].isCompleted = false;
      break
    case 'remove':
      newTodos = [...todos];
      newTodos.splice(action.index, 1);
      break
    default:
      return newTodos
  }

  return newTodos
}
```

Usage

```
const [inputValue, setInputValue] = useState('');
const [todos, dispatchTodos] = useReducer(todosReducer, []);
dispatchTodos({type: 'add', text: inputValue});

dispatchTodos({type: todo.isCompleted ? 'undone' : 'done', index})

dispatchTodos({type: 'remove', index})
```

Built-in Hooks

*This slide lists the APIs for the **built-in Hooks** in React.*

Basic Hooks

- **useState**
- **useEffect**
- useContext

Additional Hooks

- **useReducer**
- useCallback
- useMemo
- useRef
- useImperativeHandle
- useLayoutEffect
- useDebugValue

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Custom Hooks

*Building **your own** Hooks let you extract component's logic into reusable functions.*

https://github.com/rehooks/awesome-react-hooks

Demo

Todo Application with Hooks

Thanks.

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