

# React Developer: Maritime Software Engineering

## About DHI

DHI is a global and independent company dedicated to working on challenges within the fields of water and environment and sustainability. Within these fields, we provide a wide range of advisory, digital advisory, research and water governance services as well as providing leading edge MIKE technologies and products to the market. At DHI, we are constantly looking for passionate and talented people who are eager to join our team.

By joining DHI, you will not only become part of a dynamic and collaborative global team of experts; you will be empowered to innovate, engage and grow in your area of expertise. DHI is committed to disseminate our knowledge effectively and across our worldwide network of offices. You will be working for DHI Seaport, a subsidiary of DHI.

DHI Seaport is responsible for the 24/7 operational management of our cloud-based services to Ports and Waterway operators, owners and regulators. Our core service offering is our digital port solution, NCOS ONLINE - the world's most accurate large vessel traffic management system and we are conquering the world with this right now!

In DHI's Digital Marine Team in Malaysia, we're applying modern web technologies to solve complex maritime challenges. Our work combines advanced weather modelling with real-time data processing to create tools that support critical decision-making in ports worldwide.

## Technical Environment & Challenges

Our flagship system, NCOS ONLINE, processes environmental data and hydrodynamic models to predict vessel behaviour with high precision. The system integrates multiple data sources including:

- Real-time meteorological and oceanographic data feeds
- Complex forecast models
- Vessel specifications and performance characteristics
- Port infrastructure constraints

Are you interested in joining our growing, innovative development team that helps build the next generation of ports and maritime software solutions? Are you highly motivated to learn and work with new technologies?

## Responsibilities and challenges

As a React Developer, you'll work on:

- Maintaining and modernizing our existing React codebase
- Participating in architecture decisions for our planned migrations and new products
- Developing technical solutions for visualization of maritime data
- Working within our NX mono repo structure

You'll collaborate with a technically diverse team in our Kuala Lumpur hub, including developers, hydrodynamic specialists, and maritime experts.

## Growth Opportunities:

- Expand expertise in geospatial data visualization and processing
- Develop skills in complex state management and user interactions
- Contribute to architecture decisions in a mission-critical application
- Build domain expertise in a specialized technical field
- Gain hands-on experience in application architecture with clear paths to ownership

## Responsibilities:

- Troubleshoot and enhance our existing maritime application
- Build high-performance components using modern React in our NX mono repo
- Implement proper separation of business logic using MOBX stores
- Develop interactive map visualizations for maritime operations
- Write comprehensive test suites for both business logic and UI
- Ability to work and collaborate with senior developers and maritime domain experts in a team environment across time zones

You will be tackling several technical challenges:

- Visualizing complex data in intuitive interfaces that enable quick, informed decisions by maritime professionals
- Implementing sophisticated state management for complex user interactions to screen

different levels of risk

- Developing reusable software that can be applied across many clients with varying requirements

Recently, one of our solutions was recognized with the Innovation Excellence award for Australia Infrastructure by helping optimize vessel routes, resulting in measurable emission reduction, helping to make shipping greener.

#### **Qualifications and personal skills**

- Requirements: 3+ years of React development experience  
Strong TypeScript skills  
Experience with state management (particularly MOBX)  
Proficiency with modern React patterns and hooks  
Solid testing experience  
Analytical thinking and problem-solving abilities
- Nice-to-Haves: Experience with mapping libraries (Deck.gl, mapbox), GDAL, QGIS  
Familiarity with MUI component library  
C# knowledge / full-stack experience  
Experience with NX monorepo  
Understanding of GraphQL, Hasura, and Entity Framework  
Design and UX experience  
Engineering background (civil, mechanical, marine)

#### **We offer**

- A challenging role with room for your own innovations and direct impact
- Complex technical problems that require innovative solutions
- Flexible working arrangements
- Supportive environment that encourages innovation, continuous learning and career progression
- Chance to work alongside passionate and talented colleagues and clients from across the globe
- Occasional travel to our other offices in Australia or Europe
- Work that matter – our solutions reduce maritime emissions and improve safety in ports worldwide

#### **Office location**

- You will be located in our office in Kuala Lumpur, Malaysia.

#### **How to apply**

- Please submit your application including CV along with any relevant technical portfolio or GitHub links via the relevant job posting on DHI's website: <http://www.dhigroup.com/careers>
- Our interview process focuses on both technical skills and problem-solving approach: Initial discussion (20min) Technical interview including code review and problem-solving (1.5 hour) Final discussion with team leads (30min)

Join us in creating technology that's making shipping safer, more efficient, and more sustainable!

***To apply for this position, you must have the right to work in Malaysia without restrictions.***