

## NCS-Based KAIST Job Description

Recruitment area	<i>Research (Post-Doc)</i>	Classification system	Parent category	Sub-category	Sub sub-category	Sub sub-sub-category
			<i>IT</i> <i>Chemistry</i>	<i>IT</i> <i>Chemical substance</i>	<i>AI</i> <i>Chemical R&amp;D</i>	<i>AI Modeling</i> <i>Development of new chemical</i>
Mission	<ul style="list-style-type: none"> <li>○ Korea Advanced Institute of Science and Technology (KAIST) Act               <ul style="list-style-type: none"> <li>- Educating outstanding talent proficient in theory and practice as required in the fields of science and technology for industrial development</li> <li>- Carrying out the nation's mid- and long-term R&amp;D, and basic and applied research to foster national competitiveness in science and technology</li> <li>- Providing comprehensive support to research conducted by other research centers and industries</li> </ul> </li> </ul>					
KAIST's major businesses	<ul style="list-style-type: none"> <li>○ Education: Fostering creative talent, strengthening convergence education, nurturing global leaders in science and technology, strengthening human resource capacity</li> <li>○ Research: Support for development of outstanding research projects, acquisition of specialized researchers, advancement of entrepreneurial culture, creation of high value-added intellectual property rights, promotion of technology transfer/commercialization, and development of large-scale, leading projects</li> <li>○ Cooperation: Creating a working environment to be at par with global standards, and multifaceted cooperation for global leadership</li> <li>○ Administration: Provision of administrative and technical service for international students/faculty (Support for operation of a "Korean-English bilingual campus")</li> </ul>					
Growth engines	<ul style="list-style-type: none"> <li>○ Vision: Global Value-Creative World-Leading University               <ul style="list-style-type: none"> <li>- Hub for Fostering Knowledge Creation and Global Convergence Talents</li> <li>- Center for the World-Leading New Knowledge and Technology)</li> </ul> </li> <li>○ Five innovation initiatives: Innovation in education, research, technology commercialization, globalization and future strategies</li> <li>○ 3C Leadership: Change, Communication, Care</li> </ul>					
Duties and responsibilities	<ul style="list-style-type: none"> <li>○ Performing the M313 Global Singularity Project and Relevant Projects</li> <li>○ Establishment of materials-processing-structure database</li> <li>○ Application and evaluation of machine learning models</li> <li>○ Development of text mining model algorithms</li> </ul>					
Job performance details	<ul style="list-style-type: none"> <li>○ Standardization of materials-processing-structure data and establishment of a standardized database</li> <li>○ Application &amp; evaluation of machine learning models, based on images showing the physical properties of materials</li> </ul>					

Knowledge required	<ul style="list-style-type: none"> <li>○ Machine learning</li> <li>○ Comprehensive understanding of the physical manifestation of material properties – especially energy materials</li> <li>○ Understanding of material image data processing</li> </ul>
Required skills	<ul style="list-style-type: none"> <li>○ Modeling machine learning</li> <li>○ Standardization of machine learning data</li> <li>○ Image data processing</li> <li>○ Use of the atomic force microscopy (optional)</li> </ul>
Attitude while performing duties	<ul style="list-style-type: none"> <li>○ Taking on roles with initiative &amp; minimizing trial-and-error via active feedback</li> <li>○ Prompt problem solving and decision making through active discussion with experts from relevant fields</li> </ul>
Basic skills	<ul style="list-style-type: none"> <li>○ Interpersonal skills, job ethics, problem-solving skills, communication skills, organizational skills, analytical skills, and resource management abilities</li> </ul>
Reference site	<p><a href="http://www.ncs.go.kr">www.ncs.go.kr</a>, <a href="http://www.kaist.ac.kr">www.kaist.ac.kr</a></p>