# Job Opportunities

**Job Openings of Scientific Research**

## Job Description 1

1. Conduct scientific researches regarding AI-related technologies, including knowledge application, intelligent decision, etc.

2. Build knowledge bases of professional areas and continuously enrich them by grabbing and analyzing knowledge from the Internet.

3. Analyze and regulate big data and optimize intelligent algorithms.

**Requirements**

1. Proficiency in various AI algorithms. Familiarity with technologies of knowledge representation and inference.

2. Familiarity with programming languages including Python/R.

3. A PhD degree or above in mathematics, statistics and computer science etc. Relevant work experience is an asset.

**Number of Job Openings: 50**

## Job Description 2

1. Investigate brain-computer interface (invasive/non-invasive) and develop relevant systems, research hybrid intelligence systems based on brain-computer fusion.

2. Conduct research in coding and decoding of neural signals, and control and feedback of brain-computer interface.

3. Investigate hybrid intelligence based on brain-computer fusion, including structure, system, computing platform, etc.

4. Research neural computing, computational neuroscience and brain-like intelligence.

**Requirements**

1. Proficiency in at least one of the following skills: C/C++, C#, Python and Matlab.

2. A PhD degree or above in biomedical engineering, computer science and technologies, electronic circuit and system, cognitive science, neuroscience, computational neuroscience, statistics, artificial intelligence, and control science etc. Relevant work experience is an asset.

3. Research and development experience in the field of brain-computer interface is preferred.

**Number of Job Openings: 50**

# Job Description 3

1. Develop a biomedical information platform catering to multi-center coordination based on OMOP and I2B2.

2. Develop a high-performance platform for data storage and processing based on frameworks, i.e. Hadoop and Spark.

3. Develop a multi-domain, multi-granularity knowledge system integration and sharing based on semantic technology

4. Investigate biomedical theories and methods for protection of data privacy based on block chain and homomorphic encryption.

5. Develop a biomedical tool set for data analysis with strategies allowing sharing of complex data.

**Requirements**

1. Proficiency in at least one of the following skills: C/C++, C#, Python, R, Scala, Matlab, Java and JavaScript.

2. A PhD degree or above in biomedical informatics, computer science and technologies, mathematics, statistics, and biomedical engineering etc. Relevant work experience is an asset.

3. Research and development experience in fields including biomedical information technologies and systems, big data analysis and management in health care, data security and privacy protection, and medical artificial intelligence is preferred.

**Number of Job Openings: 50**

## Job Description 4

1. Develop new chips and systems of barrier-free perception.

2. Develop AI chips and systems for intelligent decision-making.

3. Develop heterogeneous multi-core systems of intelligent decision-making based on AI chips and general-purpose processors.

4. Investigate analogue simulation and modelling approaches of silicon-based radio frequency and millimeter-wave devices.

5. Investigate circuit-level analogue simulation and modelling approaches of barrier-free perception chip systems and intelligent decision chip systems.

6. Offer interface support to chip design and tape-out manufacturing.

**Requirements**

1. Familiarity with theories and structures of various RADAR and LiDAR, IC design and layout design of silicon-based digital-analog mixed circuits and microwave millimeter-wave circuits. Proficiency in commonly-used IC design tools including Cadence, ADS, Synopsy, etc.

2. Familiarity with design cycle of digital circuit and system, algorithms and circuit implementation of AI, structures and implementation of CPU and DSP. Knowledge of design methodology of low-power digital circuit. Capability of programming. Proficiency in application of commonly-used digital IC design tools, including Cadence, Synopsys, etc.

3. Good knowledge of mathematics and physics. Familiarity with electromagnetic field theory and relevant tools for modeling and simulation, i.e. Ansoft. Familiarity with commonly-used analog and RF circuit simulation tools, including Specter, ADS, etc.

4. Good knowledge of mathematics and physics. Familiarity with IC design methods, IC devices and circuit modelling methods, and commonly-used IC EDA simulation models, i.e. SPICE.

5. Familiarity with physical and technological process of semiconductor devices, IC back-end design approaches. Work experience in IC foundries is preferred.

6. A PhD degree or above in microelectronics, electronics, physics, optoelectronics

and computer science, etc. Relevant work experience is an asset.

7. Excellent capability and skills of understanding and communication. Sense of service and teamwork spirit. Self-motivated, able to work independently, taking initiative and be as the leader of the team to obtain achievements, able to work under pressure. Ability of independent learning and ability to adapt in fast-changing internal and external environment.

**Number of Job Openings: 80**

# Job Description 5

1. Design robot-related mechanical structures, and conduct 3D modelling, simulation optimization and test analysis of the robot as a whole and its key components.

2. Research dynamic equilibrium theory of biped robot, write motion control and gait algorithms, and debug and test the written algorithms.

3. Design, develop and test software infrastructure of robots, and construct a three-layer overall structure of the robot's underlying hardware control, middle control algorithm, and high-level user interaction.

**Requirements**

1. A Ph.D. Degree or above in mechanical design and manufacturing, mechatronics, electronic and electrical engineering, control, and computer science, etc. Relevant work experience is an asset.

2. Proficiency in design software including SW, CAD, etc. Experience in mechanical structure design and innovative design and proficiency in simulation analysis technologies, i.e. finite element, is preferred.

3. Good knowledge of mathematics, proficiency in C/C++ and Matlab, good programming habits, empirical experience in legged robot algorithms is preferred.

4. Familiarity with commonly-used data structures and algorithms. Familiarity with at least one scripting language, including Python, Java, etc. Familiarity with development and deployment of robot software.

**Number of Job Openings: 50**

# Job Description 6

1. Research frontiers of network security, including side-channel attacks, attack and defense technologies, situational awareness, etc.

2. Investigate software-defined active defense systems, intelligent decision-making, mimic intrinsic defense and protection, etc.

3. Investigate data security storage technologies, data privacy protection technologies, dynamic protection, etc.

4. Investigate technologies for analysis and exploitation of system vulnerabilities. Research detection and identification of new and complex attacks.

5. Construct network security ranges.

**Requirements**

1. Familiarity with SSL/TLS, HTTPS, various encryption and hash algorithms, key exchange protocols, etc. Proficiency in at least one of the following skills: C/C++, C#, Python, R, Scala, Matlab. A PhD degree or above in information security, computer science and technologies, mathematics, and statistics, etc. Relevant work experience is an asset.

2. Familiarity with vulnerability theory. Knowledge of at least one of the following fields: web security, hardware security, software security, and system security.

3. Excellent skills of communication, sense of service and teamwork spirit. Self-motivated, able to work independently, taking initiative and be as the leader of the team to obtain achievements, able to work under pressure. Ability of independent learning and ability to adapt in fast-changing internal and external environment.


**Number of Job Openings: 50**


# Job Description 7

1. Research and develop architecture, core protocol, key technologies of next generation Internet, and develop core platform.

2. Establish protocol standard related to next generation Internet, and compile protocols and standard files.

3. Develop a next generation Internet core platform of management, service and supervision.

4. Investigate global Internet development, Internet governance, next generation Internet, etc.

**Requirements**

1. Proficiency in Internet architecture and protocols.

2. Proficiency in the new generation network architecture and virtualization technologies, including SDN, NFV, etc.

3. Proficiency in C/C++ language. Experience of relevant communication or network protocol software development. Good ability to compile documents.

4. English level of CET-6 or above. Ability to listen, speak, read and write in English. Overseas education or work experience is preferred.

5. Excellent communication skills, teamwork spirit and innovative consciousness.

6. A PhD degree or above in information and communication engineering, computer science and technologies, software engineering, and control science, etc. Relevant work experience is an asset.

**Number of Job Openings: 16**

**Contact Information**

**Ms. Hou & Ms. Cao**

**Tel: 0571-56390573, 0571-56390575**

**Email: zhaopin@zhejianglab.com**

**Offical Wechat Account:**