IMPERIAL COUNTY

BUSINESS, COMPUTING & ENGINEERING

TALENT DEMAND REPORT 2024

IVEDC

IMPERIAL VALLEY ECONOMIC DEVELOPMENT CORPORATION

IVEDC

IMPERIAL VALLEY ECONOMIC DEVELOPMENT CORPORATION

ORGANIZATION OVERVIEW

VISION

Imperial Valley Economic Development Corporation (IVEDC) is a collaborative effort between private businesses and local government, driven by the shared goal of expanding and diversifying the economy. Our investors comprise a mix of public and private entities that stand to gain from the regional economic growth. Our primary objective is to boost the regional economy by actively promoting the area to attract businesses.

EMPLOYER WORKING GROUP

An Employer Working Group addresses shared workforce needs among employers. This assessment aims to communicate the collective demand and strengthen the local pipeline of entry-level talent in Imperial County. The Employer Working Group will identify barriers and challenges to securing talent in areas of business, computing, and engineering, with additional sectors being included in future editions. Representatives from academia will be involved to learn about how they can develop curriculums commensurate to industry needs identified throughout the process. Additionally, industry representatives will stay engaged with academia to ensure that curricula stay relevant to their ongoing needs.

IMPERIAL COUNTY

OVERVIEW

Imperial County is located on the southeast border of California. As of 2023, the population was 178,692, making it one of the least populated counties in California. Imperial County is recognized by its distinctive features like being a major agricultural hub, proximity to the Salton Sea, proximity to the Mexican border, and being the 2nd largest in renewable energy generation by county in California.

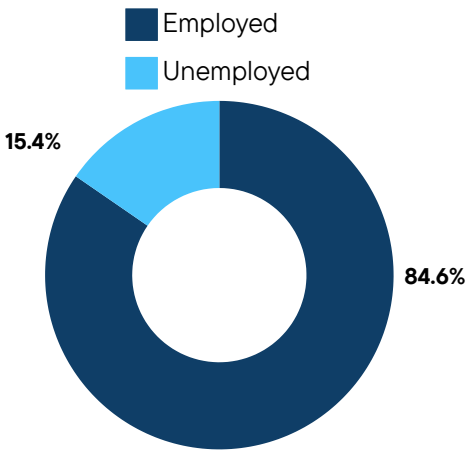
TAKEAWAYS

- Between 2018 and 2023, the number of jobs have increased by 3%, from approximately 70,860 to 73,000.
- The labor force participate rate rose by 1.5% during the same period from 57.1% to 58.6% between 2018-2023.
- 7.7% of Imperial County residents hold a Associate's Degree, 23.3% of residents indicated some college attainment, 12.2% hold a Bachelor's Degree, and 4% hold a Graduate Degree or higher.
- The unemployment rate in Imperial County, as of May 2024 was 15.4%, which is a decrease from 5 years prior.

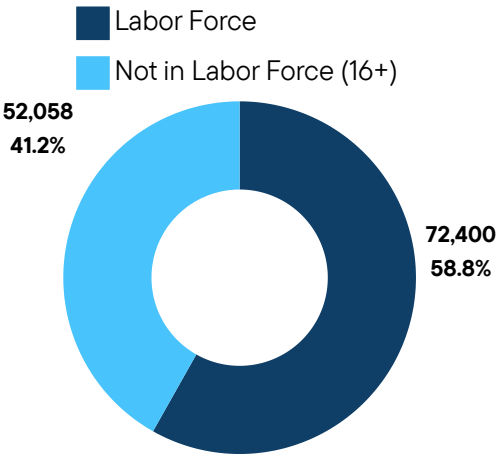
EMPLOYMENT PROFILE

LABOR FORCE BREAKDOWN

EMPLOYMENT RATE



LABOR FORCE BREAKDOWN

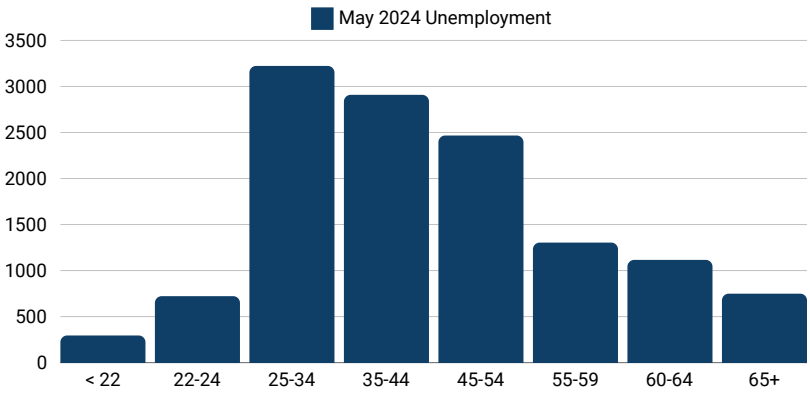


JOB TRENDS

Year	Jobs
2018	70,864
2019	71,085
2020	67,859
2021	70,693
2022	72,622
2023	72,965

Source: California Employment Development Department (EDD) - May 2024

UNEMPLOYMENT BY AGE



Source: Lightcast.io - Imperial County Economic Shapshot

JOB MARKET

Since 2018, job opportunities have been steadily increasing. With the development of Lithium Valley now underway, we anticipate continued job growth in Imperial County in the coming years.

EDUCATION PROFILE
K-12 STATISTICS

(2022-2023 School Year)

36,637
K-12 Enrollment

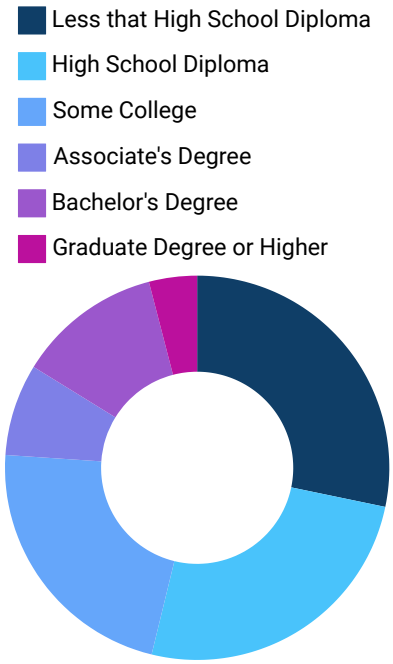
2,695
K-12 Graduates

39% Graduates
Meets UC/CSU Requirements

Source: California Department of Education

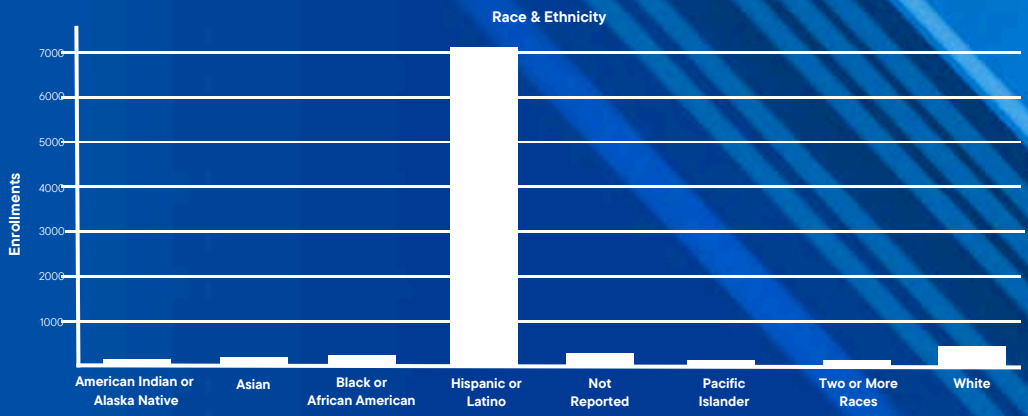
EDUCATIONAL ATTAINMENT

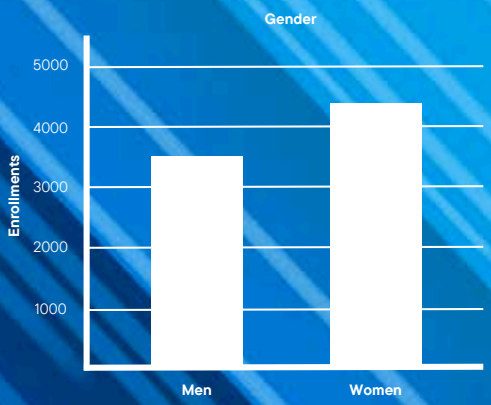
Degree Type	% of Population	Population
Less than High School Diploma	28.3%	31,200
High School Diploma	25.5%	28,200
Some College	23.3%	24,563
Associate's Degree	7.7%	8,535
Bachelor's Degree	12.2%	13,425
Graduate Degree or Higher	4%	4,463



Source: Lightcast.io - Imperial County Economic Snapshot

Postsecondary Enrollments by Race & Ethnicity and Gender





Source: Data.USA - Imperial County, CA Profile

EDUCATIONAL INSTITUTES PROFILE

Over 10,000 students, both part-time and full-time, attend local educational institutions each academic year. These institutions recognize the need to prepare students for jobs in Lithium Valley, and they will play a crucial role in the talent supply pipeline in Imperial County.

With the introduction of the Lithium Industry Force Training (LiFT), programs like Plant Operator, Instrumentation Technician, and Chemical Lab Technician are designed to meet the growing industry demand for a skilled workforce within Lithium Valley. Additionally, the latest expansion to the SDSU Imperial County Campus in Brawley includes an $80 million state-of-the-art STEM Innovation Hub. This facility is part of the university's commitment to meeting the current and future demand for a highly skilled, educated workforce, preparing students to be ready for opportunities in Lithium Valley.

Strong partnerships between industry and local educational institutes are essential to bridging the gap between industry needs and training programs.

RESEARCH

EMPLOYER WORKING GROUP

The Employer Working Group was formed to provide insight into employer challenges and needs. This report does not aim to reflect the needs of all employers in Imperial County but to outline important skill requirements for entry-level talent. By sharing this information, we hope to identify a list of skills that employers agree are crucial for entry-level talent to be successful in their roles.

Imperial County's Employer Working Group, representing multiple industries, participated in a survey to share their local demand for talent. Their combined insights highlight the specific skills and qualifications needed to meet their workforce demands in Imperial County.

FOCUSED INDUSTRIES

The Employer Working Group will initially focus on 3 skillsets in business, engineering, and computing within varying industries sectors from utilities, renewable energy, public sector, construction, and engineering. The following pages will highlight the hard skills, soft skills, software skills, and industry-specific skills essential for entry-level candidates.

This report will represent the first efforts of the Employer working Group, with plans to include additional companies and industries in future editions.

FOCUSED SECTORS AND ROLES

BUSINESS

- Business Administration
- Business Operations
- Marketing & Communications

COMPUTING

- IT Support Technician
- Systems and Network Admin
- Software Developers
- Cybersecurity Analysis

ENGINEERING

- Engineering Technicians
- General Engineers
  - Civil
  - Electrical
  - Mechanical
  - Chemical...

SURVEY FOCUS AREAS

HARD SKILLS

SOFT SKILLS

SOFTWARE SKILLS

INDUSTRY SPECIFIC NEEDS

EMPLOYER WORKING GROUP

BUSINESS SECTOR SURVEY RESULTS

OVERVIEW

Companies reported little to no turnover across all occupations surveyed and encountered minimal difficulty when filling business entry-level positions. Despite having a sufficient number of applicants per position, a notable challenge in hiring for these roles was the lack of candidates having the necessary training and/or education. Across various fields, the most common degree requirement for business entry-level positions is a Bachelor's Degree, closely followed by a High School Diploma

Companies highlighted that there was a gap in the proficiency of entry-level candidates in hard skills such as research and data analysis, communication skills, and presentation skills, all of which were rated as highly important for their role. Additionally, while soft skills like verbal and written communication, problem-solving, and critical thinking were deemed crucial, findings from the survey indicate that many entry-level candidates demonstrated only basic proficiency in these areas.

EMPLOYER WORKING GROUP

BUSINESS SECTOR SURVEY RESULTS

HARD SKILLS
Most to Least Important*

1. Communication tools
2. Computer Proficiency
3. Presentation Skills
4. Research and Data Analysis
5. Marketing/Social Media Management
6. Cold Calling

Ranked by Employers

SOFT SKILLS
Most to Least Important*

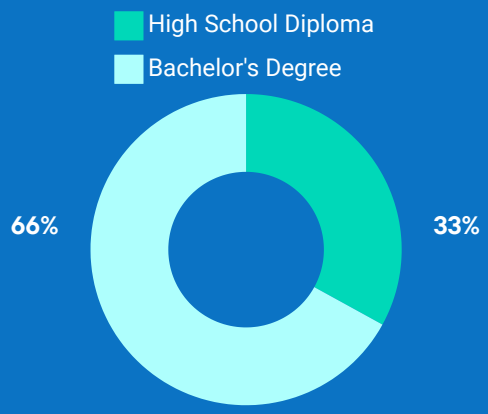
1. Collaboration
2. Dependability
3. Verbal Communication
4. Critical Thinking
5. Detail Orientated
6. Customer Service
7. Problem Solving
8. Adaptability
9. Written Communication

Ranked by Employers

SOFTWARE
Essential to Know

1. Microsoft Projects
2. Systems, Applications, and Products (SAP)
3. PAYCOM
4. Quickbooks
5. Microsoft Dynamics
6. Microsoft Suite
7. Adobe Acrobat

COMMON DEGREE REQUIREMENT FOR ENTRY-LEVEL POSITION



EMPLOYER WORKING GROUP

BUSINESS SECTOR SURVEY RESULTS

DIFFICULTY LEVEL IN FINDING QUALIFIED ENTRY-LEVEL CANDIDATES

FINANCE AND ACCOUNTING:

- *Some difficulty finding qualified candidates.*

CUSTOMER SERVICE REPRESENTATIVES:

- *Little to no difficulty finding qualified candidates.*

MARKETING AND COMMUNICATIONS:

- *Little to no difficulty finding qualified candidates.*

SUPPLY CHAIN, LOGISTICS, PURCHASING:

- *Some difficulty finding qualified candidates.*

PROJECT MANAGERS:

- *Some to great difficulty finding qualified candidates.*

AVERAGE TIME TO HIRE A QUALIFIED ENTRY-LEVEL CANDIDATE

FINANCE AND ACCOUNTING:

- *Typically takes 1-3 months to hire on average.*

CUSTOMER SERVICE REPRESENTATIVES:

- *Typically takes less than 1 month to hire on average.*

MARKETING AND COMMUNICATIONS:

- *Typically takes 1-3 months to hire on average.*

SUPPLY CHAIN, LOGISTICS, PURCHASING:

- *Typically takes 1-3 months to hire on average.*

PROJECT MANAGERS:

- *Typically takes 3-6 months to hire on average.*

EMPLOYER WORKING GROUP

COMPUTING SECTOR SURVEY RESULTS

OVERVIEW

Companies reported varying demand levels among computing entry-level positions, with higher demand observed for IT support technicians and system/network administrators compared to cybersecurity analyst, while software developers showcased the least demand. The most common degree requirement across all entry-level positions was a Associate's Degree or Vocational Certificate, closely followed by a Bachelor's Degree.

Companies highlighted a mismatch between their expectations and candidate's qualifications, despite receiving sufficient applicants. Many candidates lack the required training and/or education for these roles, particularly in critical hard skills considered very important by employers such as troubleshooting, fundamental networking knowledge, effective communication and documentation skills. Additionally, companies emphasized the importance of soft skills such as problem-solving, critical thinking, adaptability, and customer service, areas where candidates often demonstrate novice experiences in.

EMPLOYER WORKING GROUP

COMPUTING SECTOR SURVEY RESULTS

HARD SKILLS
Most to Least Important*

1. Troubleshooting
2. Operations system basics
3. Effective Communication/Documentation
4. Fundamental Network Knowledge
5. Active directory and user management
6. Programming Basics

Ranked by Employers

SOFT SKILLS
Most to Least Important*

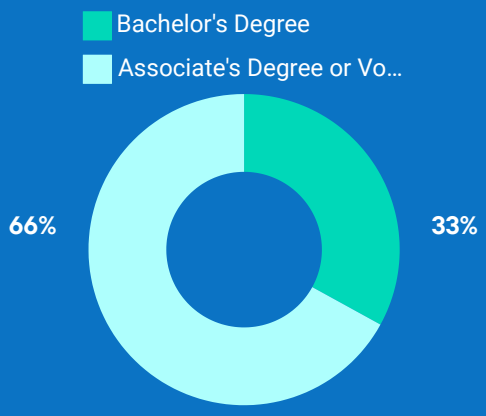
1. Verbal Communication
2. Collaboration
3. Customer Service
4. Dependability
5. Collaboration
6. Written Communication
7. Detailed Orientated

Ranked by Employers

SOFTWARE
Essential to Know

1. Microsoft Active Directory
2. Windows Operating Systems
3. Systems, Applications, Products in Data Processing (SAP)
4. Geographic Information Systems
5. Supervisory Control and Data Acquisition
6. Microsoft Suite
7. Adobe Acrobat

COMMON DEGREE REQUIREMENT FOR ENTRY-LEVEL POSITION



EMPLOYER WORKING GROUP

COMPUTING SECTOR SURVEY RESULTS

DIFFICULTY LEVEL IN FINDING QUALIFIED ENTRY-LEVEL CANDIDATES

IT SUPPORT TECHNICIANS:

- *Little to some difficulty finding qualified candidates.*

SYSTEM AND NETWORK ADMINISTRATORS:

- *Some to great difficulty finding qualified candidates.*

CYBERSECURITY ANALYST:

- *Great difficulty finding qualified candidates.*

SOFTWARE ENGINEERS:

- *Companies reported little to no demand.*

AVERAGE TIME TO HIRE A QUALIFIED ENTRY-LEVEL CANDIDATE

IT SUPPORT TECHNICIANS:

- *Typically takes 1-3 months to hire on average.*

SYSTEM AND NETWORK ADMINISTRATORS:

- *Typically takes 1-3 months to hire on average.*
- *Some companies reported it takes over 6 months to hire.*

CYBERSECURITY ANALYST:

- *Typically takes 3-6 months to hire on average.*

EMPLOYER WORKING GROUP

ENGINEERING SECTOR SURVEY RESULTS

OVERVIEW

Companies across reported some turnover and significant challenges in filling entry-level engineering positions. Despite having a sufficient number of applicants per position, a notable challenge in hiring for these roles was the lack of candidates having the necessary training and/or education. On average, it takes companies 1-3 months to find qualified entry-level engineering candidates. For entry-level engineering positions, a Bachelor's Degree is the most common degree requirement, while an Associate's Degree or Vocational Certification has been listed for Engineering Technician roles.

Companies emphasize high importance on both hard skills and soft skills for entry-level candidates. The skill level of entry-level candidates in areas of important hard skills such as safety training, equipment testing/maintenance, basic tool knowledge were often rated as deficient or neutral. This highlights areas where classes or programs involving hands-on training could significantly benefit candidates.

EMPLOYER WORKING GROUP

ENGINEERING SECTOR SURVEY RESULTS

HARD SKILLS
Most to Least Important*

1. Basic Engineering Principles
2. Basic Tool Knowledge
3. Safety Training
4. Data Analysis
5. Equipment Training/Maintenance

Ranked by Employers

SOFT SKILLS
Most to Least Important*

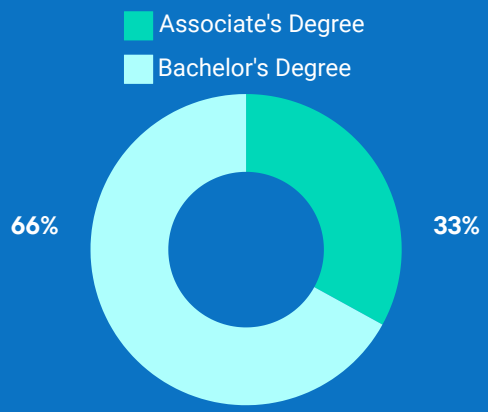
1. Dependability
2. Verbal Communication
3. Problem-Solving
4. Written Communication
5. Adaptability
6. Detail-Oriented
7. Critical Thinking

Ranked by Employers

SOFTWARE
Essential to Know

1. AutoCAD
2. Systems, Applications, Products (SAP)
3. Microsoft Projects
4. MATLAB/Simulink
5. Civil 3D
6. Primavera
7. Deltek
8. Microsoft Suite
9. Adobe Acrobat

COMMON DEGREE REQUIREMENT FOR ENTRY-LEVEL POSITION



EMPLOYER WORKING GROUP

ENGINEERING SECTOR SURVEY RESULTS

DIFFICULTY LEVEL IN FINDING QUALIFIED ENTRY-LEVEL CANDIDATES

ENGINEERING TECHNICIANS:

- *Little to some difficulty finding qualified candidates.*

GENERAL ENGINEERS:

- *Some to great difficulty finding qualified candidates.*

AVERAGE TIME TO HIRE A QUALIFIED ENTRY-LEVEL CANDIDATE

ENGINEERING TECHNICIANS:

- *Typically takes 1-3 months to hire on average.*
- *Some companies reported it takes less than a month to hire.*

GENERAL ENGINEERS:

- *Typically takes 1-3 months to hire on average.*
- *Some companies reported it takes over 6 months to hire.*

OCCUPATIONS GLOSSARY

BUSINESS OCCUPATIONS

Finance and accounting positions: They produce financial records, create reports, direct investment activities, and develop plans for long-term financial goals of the business.

Customer service representatives: They interact with customers to handle product or service inquiries and/or complaints. This does not include technical support.

Marketing and communications positions: Those who plan, direct, or coordinate advertising or marketing strategies, and create materials to enhance the public image of their employer or client while communicating on behalf of the organization

Supply chain, logistics, and purchasing positions: Those who coordinate the procurement of products and services, analyze and manage the supply chain, including transportation, storage, and distribution.

Project Managers: Those who oversee projects, including budget, schedule, staffing, and other details of a project.

EXPERIENCE LEVELS

Entry-Level: a role that is filled by someone with zero to three years of experience.

Non-Entry-Level: a role that is filled by someone with four or more years of experience.

OCCUPATIONS GLOSSARY

COMPUTING OCCUPATIONS

IT support technicians: Those who provide technical support to customers in-person or on the phone. They handle installations, diagnosis, repair, maintenance, upgrade of equipment or hardware. This also includes roles such as help desk/desktop support.

Systems and network administrators: Those who ensure system performance, design, reliability, security, and optimization. They have deep knowledge of software, hardware, and networks. They are also responsible for installing, maintaining, and upgrading software/hardware necessary to run computer networks optimally.

Software developers: Those who research, design, and develop computer and network software/specialized utility programs. They analyze user needs, develop solutions using computer science and engineering principles, and update/enhance existing software capabilities.

Cybersecurity analyst: Those who protect a company's network and systems from cyber attacks. Their responsibilities include reporting security breaches, educating employees on security measures, keeping up to date on IT trends, and creating contingency plans. They also implement security and protection measures.

EXPERIENCE LEVELS

Entry-Level: a role that is filled by someone with zero to three years of experience.

Non-Entry-Level: a role that is filled by someone with four or more years of experience.

OCCUPATIONS GLOSSARY

ENGINEERING OCCUPATIONS

Engineering Technicians: Those who operate and program machine tools that are controlled by a computer to produce metal and plastic parts. They also set up machines, write and test programs, and make adjustments as needed.

General Engineers: Those who are responsible for the application of scientific knowledge and the design, control or use of systems, equipment, or technologies. Due to the wide array of engineering disciplines, this covers aerospace, bio, chemical, civil, environmental, electrical, industrial, mechanical, and nuclear engineers.

EXPERIENCE LEVELS

Entry-Level: a role that is filled by someone with zero to three years of experience.

Non-Entry-Level: a role that is filled by someone with four or more years of experience.

HARD SKILLS GLOSSARY

BUSINESS HARD SKILLS

Research and data analysis skills: Knowledge in conducting online research and using databases for relevant information. Basic skills in analyzing and interpreting data from research.

Cold calling: Proactively reaching out to potential customers who have not expressed prior interest to initiate conversations and generate leads.

Marketing techniques and social media management: Knowledge in utilizing a range of marketing strategies and knowledge of social media platforms and basic content creation.

Communication tools: Knowledge with email systems and communication platforms like Teams, Slack, or Zoom.

Presentation skills: Ability to create and deliver presentations internally/externally using PowerPoint or similar tools.

Computer proficiency: Knowledge of operating systems, Microsoft 365/Google Workspace, basic troubleshooting, and file management techniques.

HARD SKILLS GLOSSARY

COMPUTING HARD SKILLS

Troubleshooting hardware and software issues: Ability to identify and resolve common problems with computers and software.

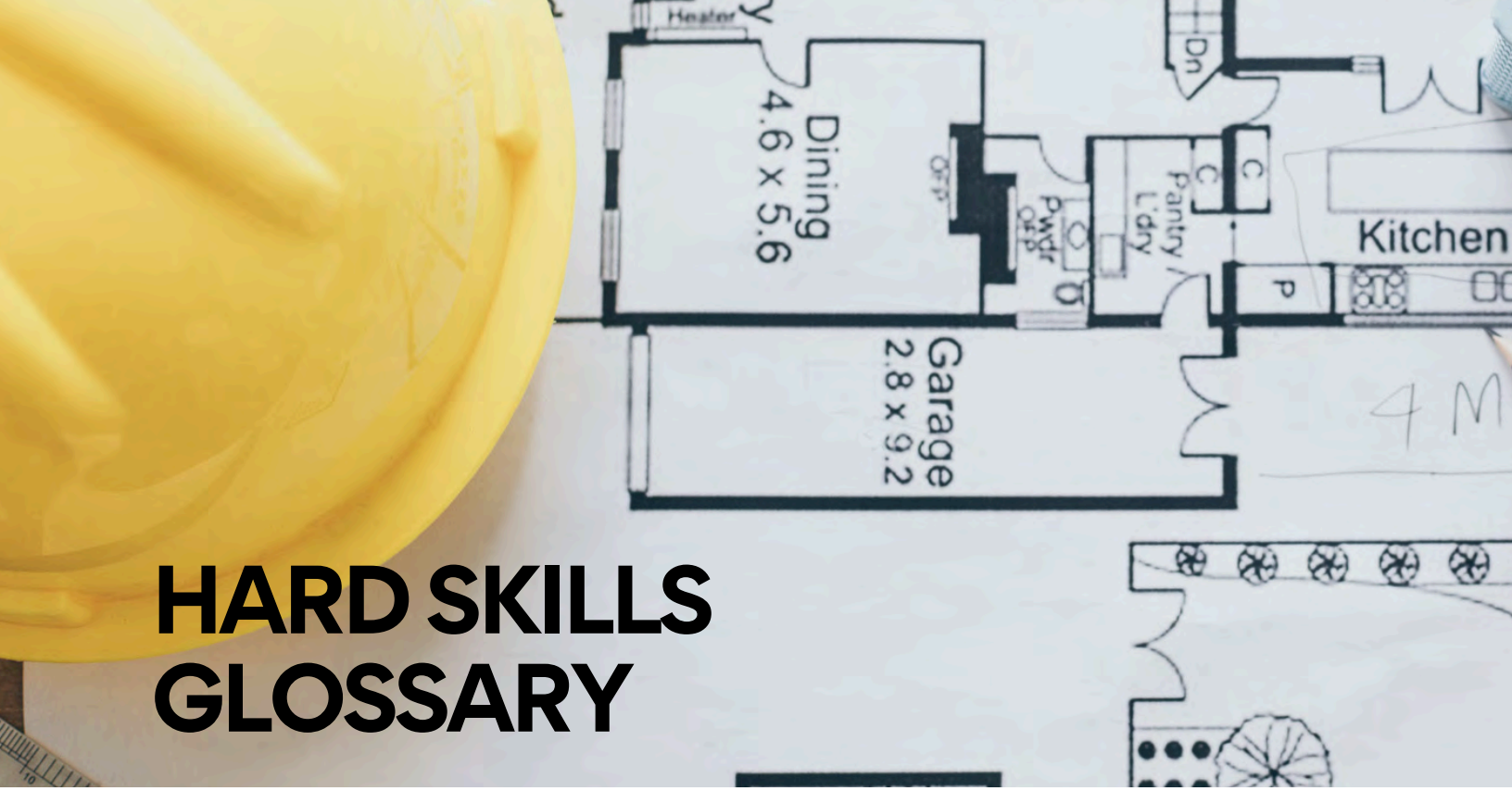
Fundamental network knowledge: Knowledge of networking protocols and the ability to configure network devices.

Programming basics: Proficiency in languages such as Python, C++ or Java that can be used for tasks like data analysis, simulation, or software development.

Operation system basics: Proficiency in operating systems such as Windows, MacOS, including installation, configuration, and troubleshooting.

Effective communication and documentation: Ability to clearly document processes and communicate technical information to both technical and non-technical stakeholders.

Active directory and user management: Familiarity with user account management and directory services like Active Directory.



HARD SKILLS GLOSSARY

ENGINEERING HARD SKILLS

Basic engineering principles: Fundamental principles and concepts of engineering, including topics such as, but not limited to, mathematics, physics, materials science, chemistry and more.

Basic tool knowledge: Understanding of commonly used tools and equipment in engineering tasks, including hand tools, power tools, and precision measuring instruments.

Safety training: Adherence to safety protocols and regulations in engineering practices to minimize risks and ensure a safe working environment for the worker and others.

Equipment testing and maintenance: Performing tests and assessments on equipment to verify functionality, performance, and compliance with safety standards. Additionally, conducting routine inspections, maintenance, and repairs on equipment and systems to prevent failures and ensure consistent performance and reliability.

SOFT SKILLS GLOSSARY

Adaptability: Open-mindedness to adjust to new or changing situations.

Collaboration: Working effectively with colleagues and others to achieve goals while demonstrating respect and listening attentively to ideas from colleagues.

Culture: Embodying the core values that align with the company's core values.

Customer Service: Building relationships, managing expectations, and creating positive customer experiences.

Dependability: Building trust by keeping promises and managing time effectively to achieve goals.

Detail-Oriented: Paying close attention to details, ensuring accuracy and completeness in work.

Leadership: Inspiring and guiding others towards common goals with effective communication, empathy, and strategic/creative thinking.

Problem-Solving: Applying critical thinking to implement creative and effective solutions to solve any problems that may arise.

Verbal Communication: Effective exchange of ideas and information through words. In-person and/or digitally.

Written Communication: Effective conveying messages and information through written text.

WORK CITED

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Imperial Valley College Institutional Research:

"Imperial Valley College Office of Institutional Research Dashboard" - Imperial Valley College, June 2024

San Diego Regional EDC:

"Advancing San Diego" - San Diego Regional EDC, June 2024

Thank you to all of our participating companies who helped make this employer working group and report possible.

If your company is interested in participating in the future employer working groups, please reach out to admin@ivedc.com or call (760) 353-8332 for more information.