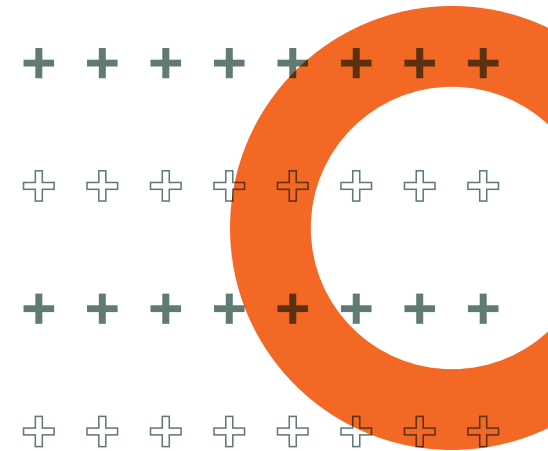


# CAREER PATHWAYS AND COMPETENCY MAPS



**INFORMATION  
TECHNOLOGY**

**EDUCATION  
WORK**

# INDUSTRY-WIDE FOUNDATIONAL COMPETENCIES

Below, please find a list of top foundational competencies within the Information Technology Industry. Foundational competencies are defined as core competencies that provide a foundation for success in school and in the world of work. Nationally, employers have identified a link between foundational competencies and job performance and foundational competencies are often a prerequisite for workers to learn new industry-specific competencies. Foundational competencies are broken down into three categories as defined below:



## INFORMATION TECHNOLOGY: INDUSTRY-WIDE FOUNDATIONAL COMPETENCIES

### PERSONAL EFFECTIVENESS COMPETENCIES

These competencies are essential for all life roles such as being a member of a family, a community, and a larger society. These “soft skills” are increasingly valued in the labor market.

- ⓧ **Reliable**
- ⓧ **Integrity**
- ⓧ **Attention to Detail**
- ⓧ **Independence**
- ⓧ **Concern for Others**
- ⓧ **Cooperation**
- ⓧ **Self-Control**
- ⓧ **Initiative**
- ⓧ **Persistence**
- ⓧ **Analytical Thinking**
- ⓧ **Adaptability**
- ⓧ **Investigative**

### EDUCATION COMPETENCIES

These are critical competencies primarily learned in an academic setting, as well as cognitive functions and thinking styles. These competencies are likely to apply to all organizations in a single industry or be represented by an industry association.

- ⓧ **Communication**
- ⓧ **Analytical Thinking**
- ⓧ **Reading**
- ⓧ **Writing**
- ⓧ **Mathematics**
- ⓧ **Science & Technology**
- ⓧ **Customer Service**
- ⓧ **Administration**
- ⓧ **Basic Computer Usage**
- ⓧ **Computer Applications**
- ⓧ **Computer Software**
- ⓧ **Data Methods**

### WORKPLACE COMPETENCIES

These competencies represent the competencies and abilities that allow individuals to function in an organizational setting.

- ⓧ **Problem Solving & Decision Making**
- ⓧ **Leadership**
- ⓧ **Teamwork**
- ⓧ **Scheduling/Coordinating**
- ⓧ **Customer Focus**
- ⓧ **Instruction/Teaching**
- ⓧ **Detail Orientation**
- ⓧ **Creative Thinking**
- ⓧ **Active Listening**
- ⓧ **Time Management**

**JOB DESCRIPTION**

Outbound Phone Customer Service and Technical Support agent assisting Microsoft customers with various office products. Solicit donations or orders for goods or services over the telephone.

**KEY FOUNDATIONAL COMPETENCIES**

Communication, Contact, Delivery, Document transactions, Explain, Obtain information, Maintain records, Scheduling

**TRANSFERABLE SKILLS**

Sales, Customer Service, Communications, Detail Oriented, Clerical, Organizational Skills, Typing, Management, Self-Motivation, Computer Literacy

**SALARY RANGE**

**Entry Level:** \$29,000 - \$50,000

**CREDENTIALS**

**Required:**  
HS Diploma

**WORK EXPERIENCE**

**Entry Level:** 0-1 Years

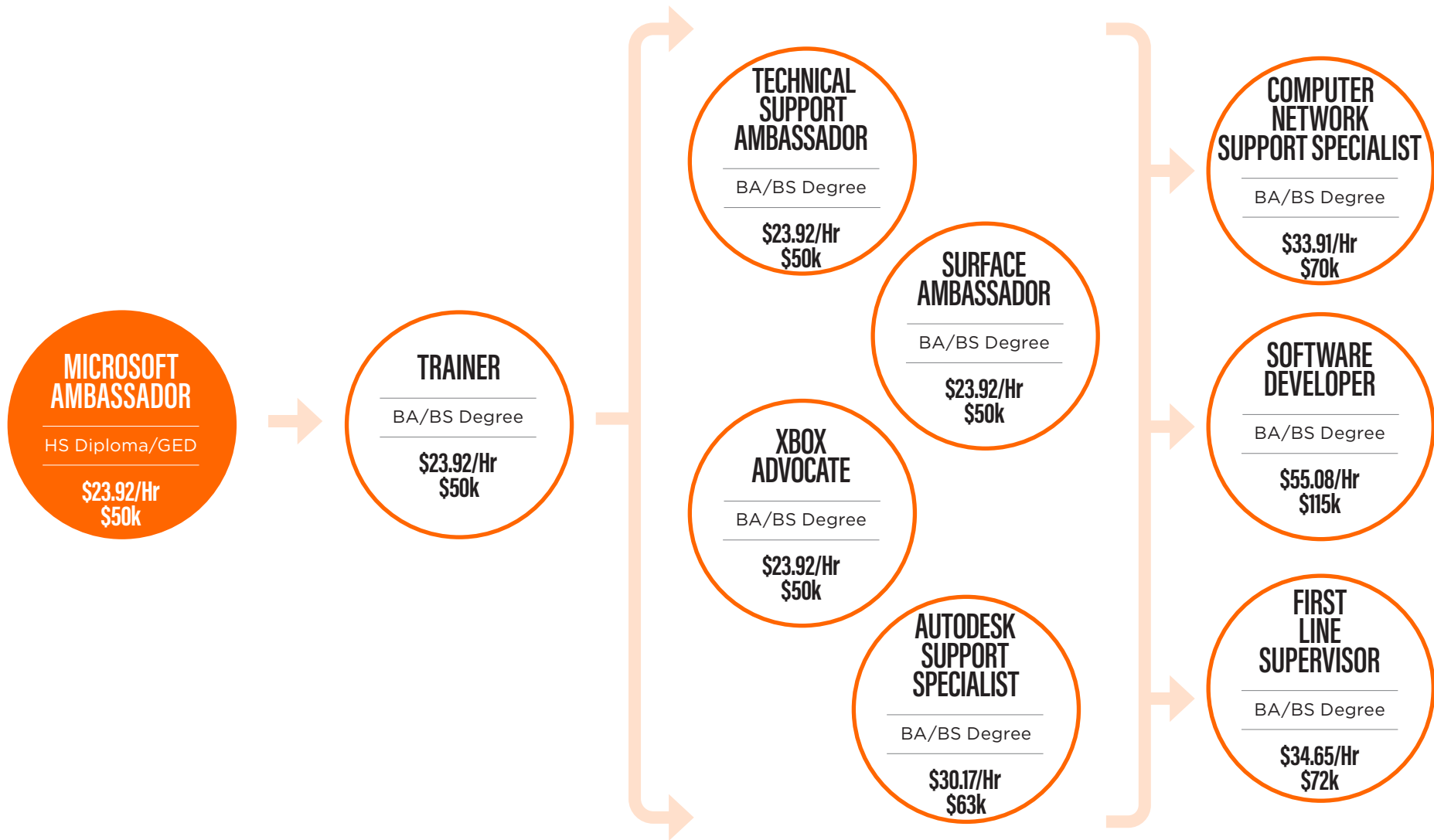
**OTHER JOB TITLES/ROLES**

Telemarketer, Telemarketing Sales Representative, Telephone Sales Representative (TSR), Telephone Service Representative (TSR), Telesales Representative, Telesales Specialist



### MICROSOFT AMBASSADOR PATHWAY

The pathway below represents a typical career pathway in the ever-changing industry of Information Technology. The highlighted circle represents the critical occupation.





### JOB DESCRIPTION

Design or conduct work-related training and development programs to improve individual skills or organizational performance. May analyze organizational training needs or evaluate training effectiveness.

### KEY FOUNDATIONAL COMPETENCIES

Knowledge of education and training principles, Customer service, Personnel and human services, Administration and management

### TRANSFERABLE SKILLS

Instructing, Speaking, Learning Strategies, Active Listening, Social Perceptiveness

### SALARY RANGE

**Entry Level:** \$47,000

### CREDENTIALS

**Required:**  
HS Diploma/GED

**Varies by Employer:**  
BA/BS Degree

### WORK EXPERIENCE

**Entry Level:** 1-3 Years

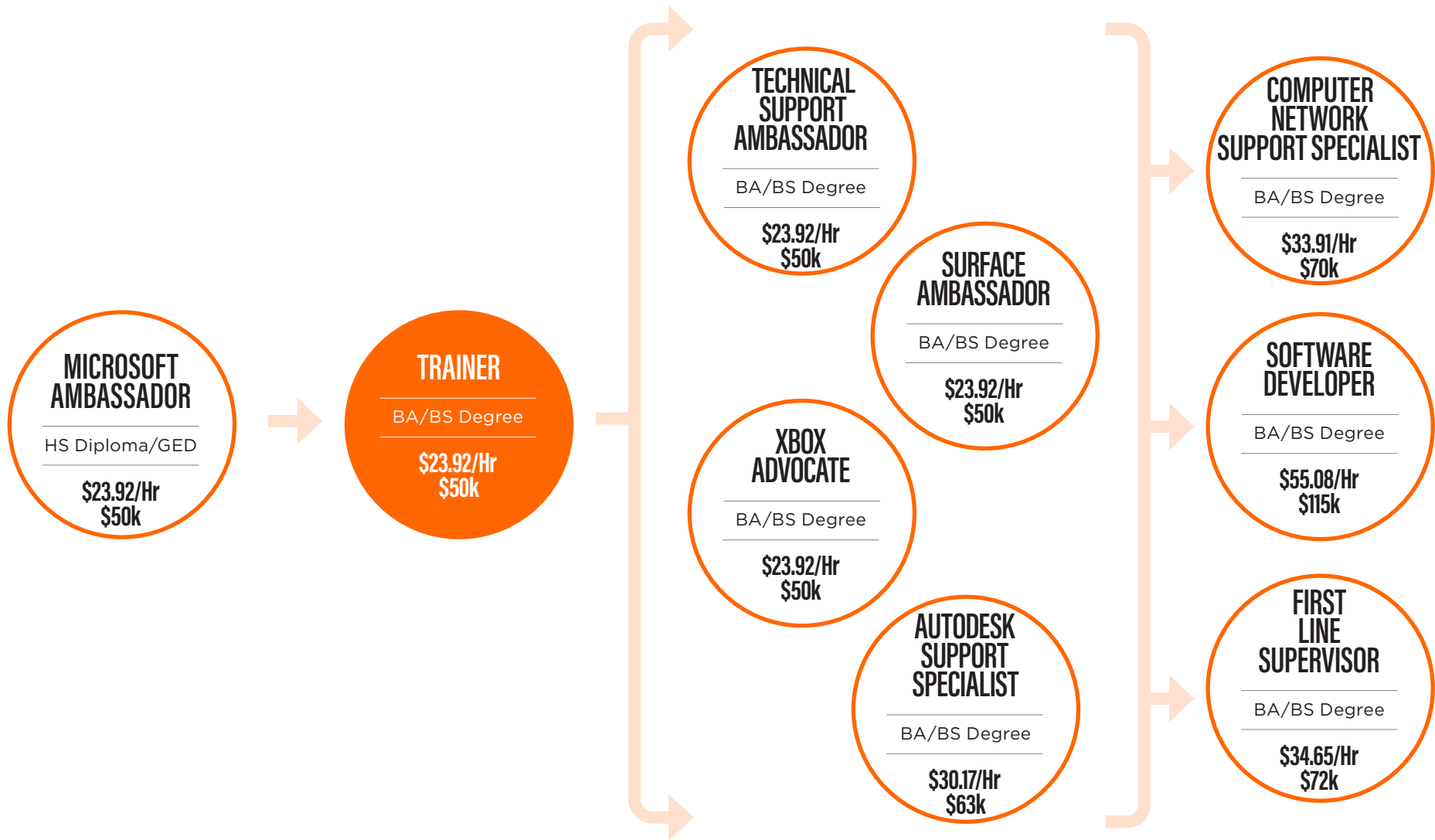
### OTHER JOB TITLES/ROLES

Computer Training Specialist, Corporate Trainer, Job Training Specialist, Leadership Development Specialist, Learning and Development Consultant, Learning and Development Specialist (L and D Specialist), Management Development Specialist, Trainer, Training and Development Consultant, Training Specialist



### TRAINER PATHWAY

The pathway below represents a typical career pathway in the ever-changing industry of Information Technology. The highlighted circle represents the critical occupation.





### JOB DESCRIPTION

Inbound phone/email technical support agent assisting Microsoft's small and medium-sized business clients with various products, including Teams, SharePoint, Office 365, Exchange, and others products.

Analyze, test, troubleshoot, and evaluate existing network systems, such as local area networks (LAN), wide area networks (WAN), cloud networks, servers, and other data communications networks. Perform network maintenance to ensure networks operate correctly with minimal interruption.

### KEY FOUNDATIONAL COMPETENCIES

Analyze, Attention to detail, Backup, Configure, Collaborate, Describe, Document, Explain, Install, Identify issues, Listening, Monitor, Research, Resolution, Troubleshoot

### TRANSFERABLE SKILLS

Communications, Customer Service, Operations, Information Technology, Management, Planning, Detail Oriented, Problem-solving, Troubleshooting

### SALARY RANGE

**Entry Level:** \$50,000 - \$68,000

### CREDENTIALS

**Required:**  
HS Diploma/GED

**Varies by Employer:**  
BA/BS Degree

### WORK EXPERIENCE

**Entry Level:** 1-3 Years

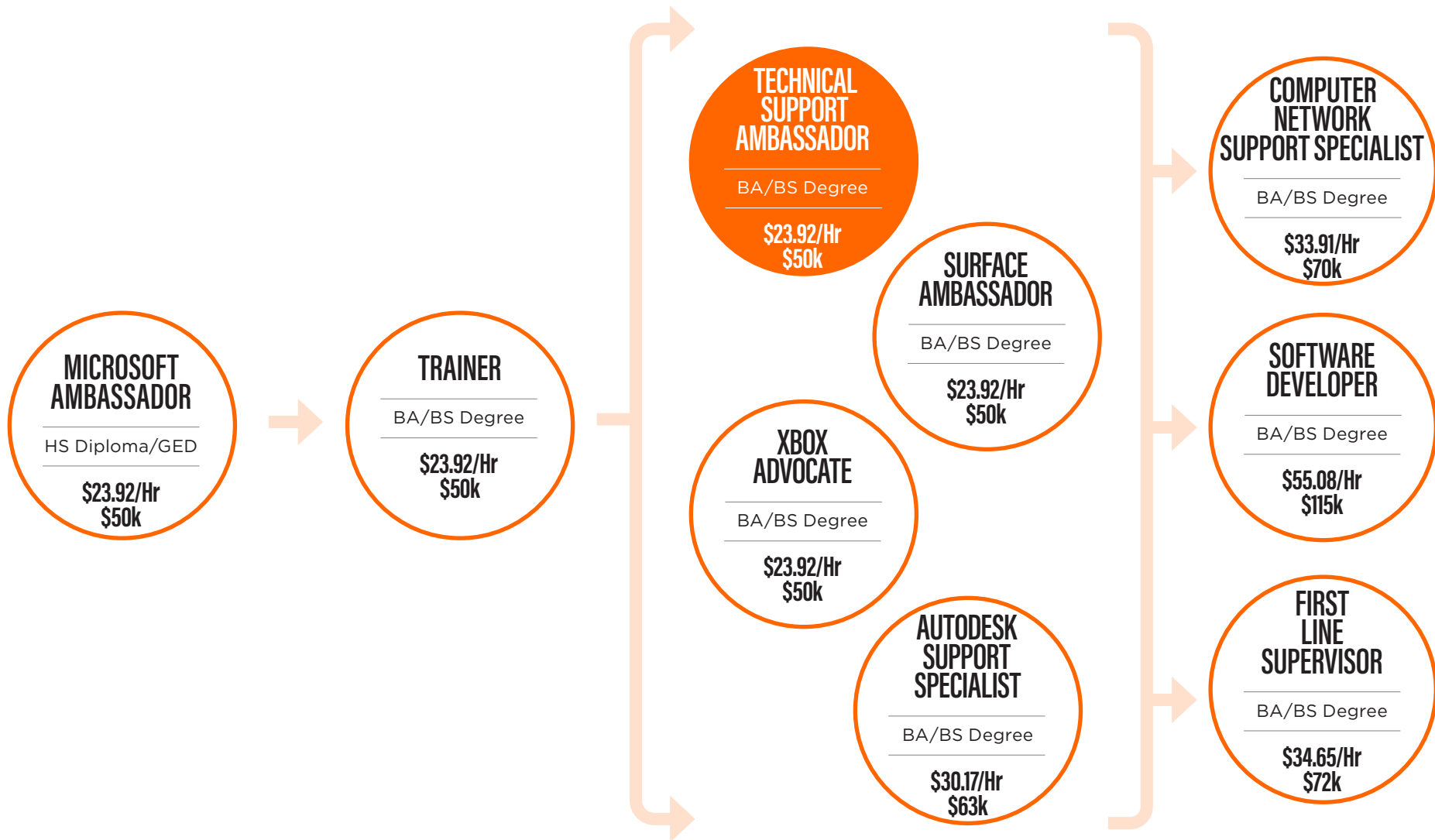
### OTHER JOB TITLES/ROLES

Computer Network Specialist,, IT Consultant (Information Technology Consultant), Network Specialist, Network Support Specialist, Network Technical Analyst, Network Technician, Personal Computer Network Analyst, Systems Specialist



### TECHNICAL SUPPORT AMBASSADOR PATHWAY

The pathway below represents a typical career pathway in the ever-changing industry of Information Technology. The highlighted circle represents the critical occupation.





### JOB DESCRIPTION

Inbound Phone/Email Technical Support agent providing Microsoft Surface users with exceptional support by troubleshooting issues relating to their Surface devices and peripherals. Provide technical assistance to computer users. Answer questions or resolve computer problems for clients in person, via telephone, or electronically. May assist in the use of computer hardware and software, including printing, installation, word processing, electronic mail, and operating systems.

### KEY FOUNDATIONAL COMPETENCIES

Analyze, Attention to detail, Backup, Configure, Collaborate, Describe, Document, Explain, Install, Identify issues, Listening, Monitor, Research, Resolution/Solutioning, Troubleshoot

### TRANSFERABLE SKILLS

Communications, Customer Service, Operations, Information Technology, Management, Planning, Detail Oriented, Problem-solving, Troubleshooting

### SALARY RANGE

**Entry Level:** \$50,000-\$68,000

### CREDENTIALS

**Required:**  
HS Diploma/GED  
**Varies by Employer:**  
BA/BS Degree

**Certifications:**  
MS Certificate is preferred and varies per employer but generally not required

### WORK EXPERIENCE

**Entry Level:** 1-3 Years

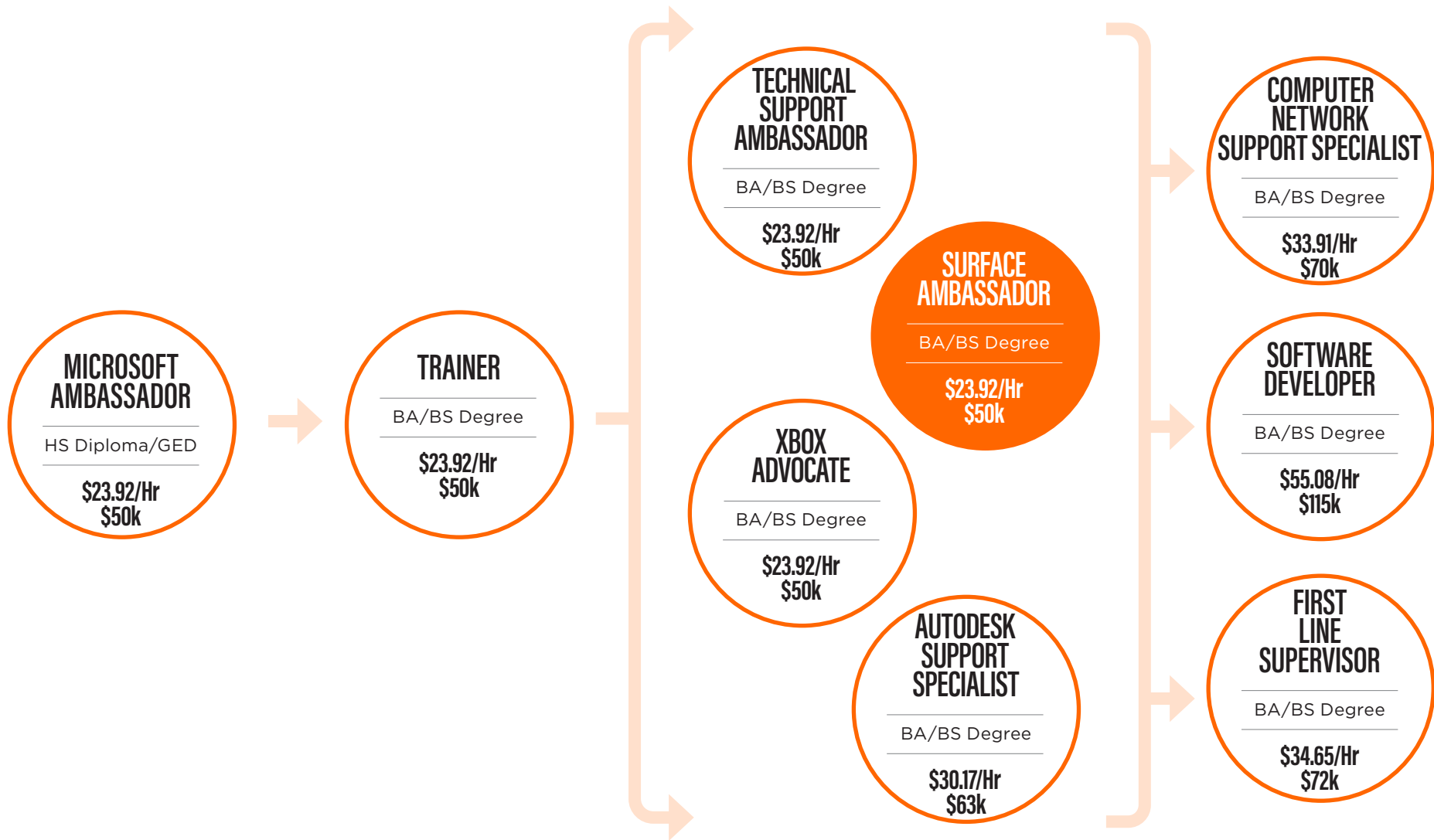
### OTHER JOB TITLES/ROLES

Computer Network Specialist, IT Consultant (Information Technology Consultant), Network Specialist, Network Support Specialist, Network Technical Analyst, Network Technician, Personal Computer Network Analyst, Systems Specialist



### SURFACE AMBASSADOR PATHWAY

The pathway below represents a typical career pathway in the ever-changing industry of Information Technology. The highlighted circle represents the critical occupation.





### JOB DESCRIPTION

Provide support to Xbox customers across all gaming endpoints.

### KEY FOUNDATIONAL COMPETENCIES

Analyze, Attention to detail, Backup, Configure, Collaborate, Describe, Document, Explain, Install, Identify issues, Listening, Monitor, Research, Resolution, Troubleshoot

### TRANSFERABLE SKILLS

Communications, Customer Service, Operations, Information Technology, Management, Planning, Detail Oriented, Problem-solving, Troubleshooting

### SALARY RANGE

**Entry Level:** \$50,000-68,000

### CREDENTIALS

**Required:**  
HS Diploma/GED  
**Varies by Employer:**  
BA/BS Degree

**Certifications:**  
MS Certificate is preferred and varies per employer but generally not required

### WORK EXPERIENCE

**Entry Level:** 1-3 Years

**Advanced Level:** 3-5 Years

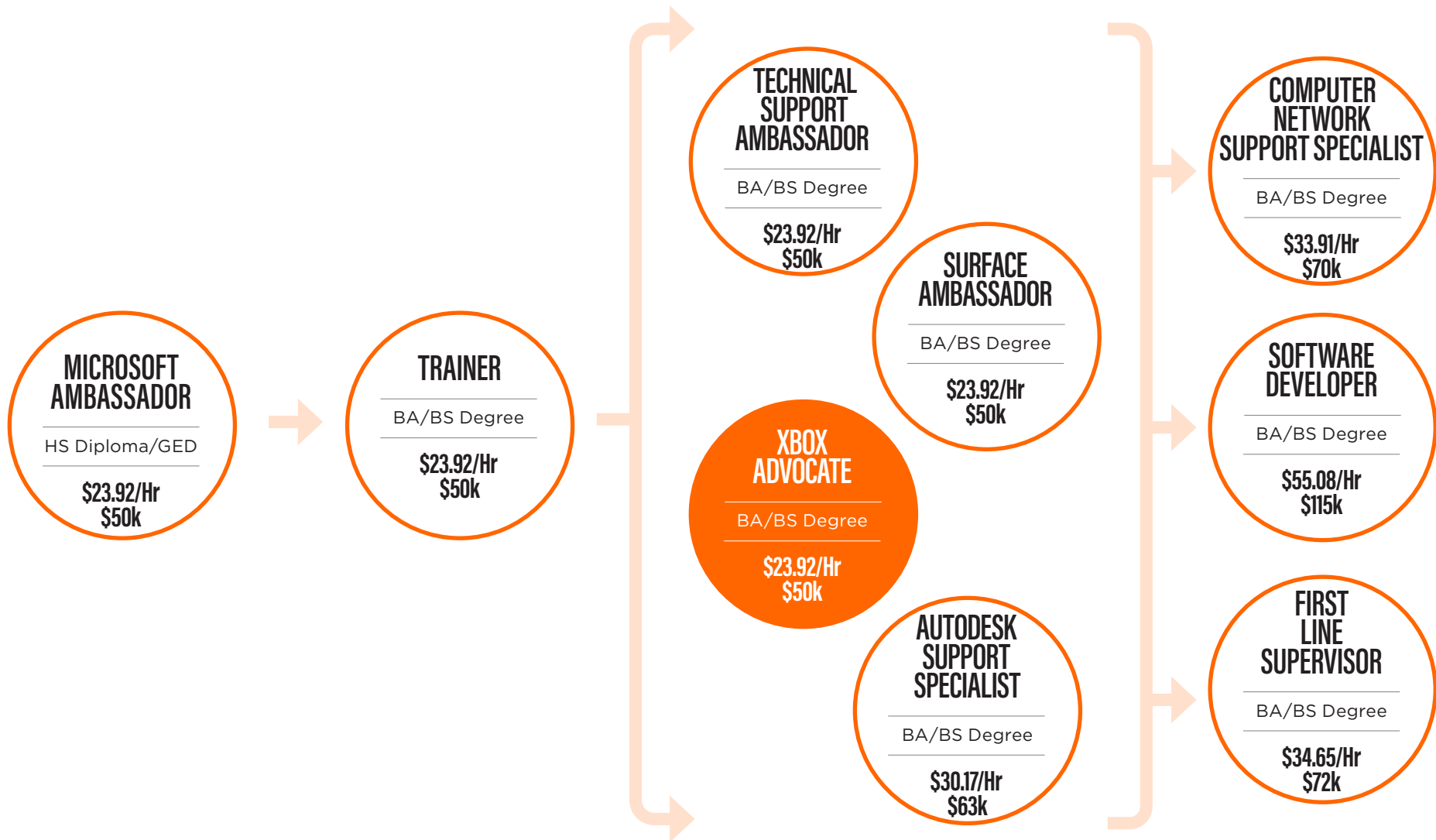
### OTHER JOB TITLES/ROLES

Computer Network Specialist, IT Consultant (Information Technology Consultant), Network Specialist, Network Support Specialist, Network Technical Analyst, Network Technician, Personal Computer Network Analyst, Systems Specialist



### XBOX ADVOCATE PATHWAY

The pathway below represents a typical career pathway in the ever-changing industry of Information Technology. The highlighted circle represents the critical occupation.



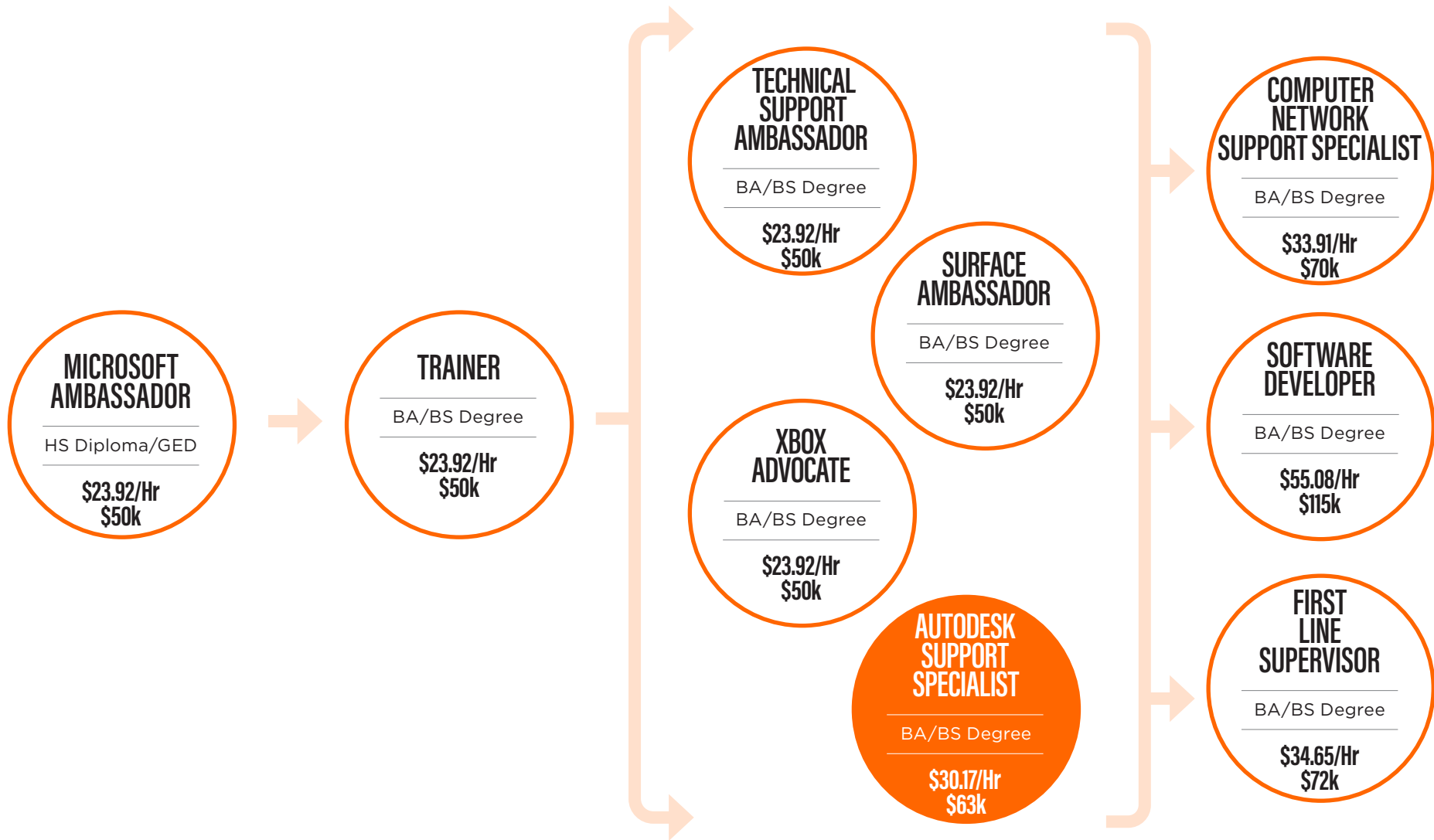


<b>JOB DESCRIPTION</b>	Analyze, test, troubleshoot, and evaluate existing network systems, such as local area networks (LAN), wide area networks (WAN), cloud networks, servers, and other data communications networks. Perform network maintenance to ensure networks operate correctly with minimal interruption.	
<b>KEY FOUNDATIONAL COMPETENCIES</b>	Analyze, Backup, Configure, Describe, Document, Explain, Install, Identify issues, Listening, Monitor, Research, Troubleshoot	
<b>TRANSFERABLE SKILLS</b>	Communications, Information Technology, Management, Customer Service Operations, Planning Detail Oriented, Prioritizing, Problem-solving, Troubleshooting	
<b>SALARY RANGE</b>	<b>Entry Level:</b> \$50,000-68,000	
<b>CREDENTIALS</b>	<b>Required:</b> HS Diploma/GED <b>Varies by Employer:</b> BA/BS Degree	<b>Certifications:</b> MS Certificate is preferred and varies per employer but generally not required
<b>WORK EXPERIENCE</b>	<b>Entry Level:</b> 1-3 Years	<b>Advanced Level:</b> 3-5 Years
<b>OTHER JOB TITLES/ROLES</b>	Computer Network Specialist, IT Consultant (Information Technology Consultant), Network Specialist, Network Support Specialist, Network Technical Analyst, Network Technician, Personal Computer Network Analyst, Systems Specialist	



### AUTODESK SUPPORT SPECIALIST PATHWAY

The pathway below represents a typical career pathway in the ever-changing industry of Information Technology. The highlighted circle represents the critical occupation.



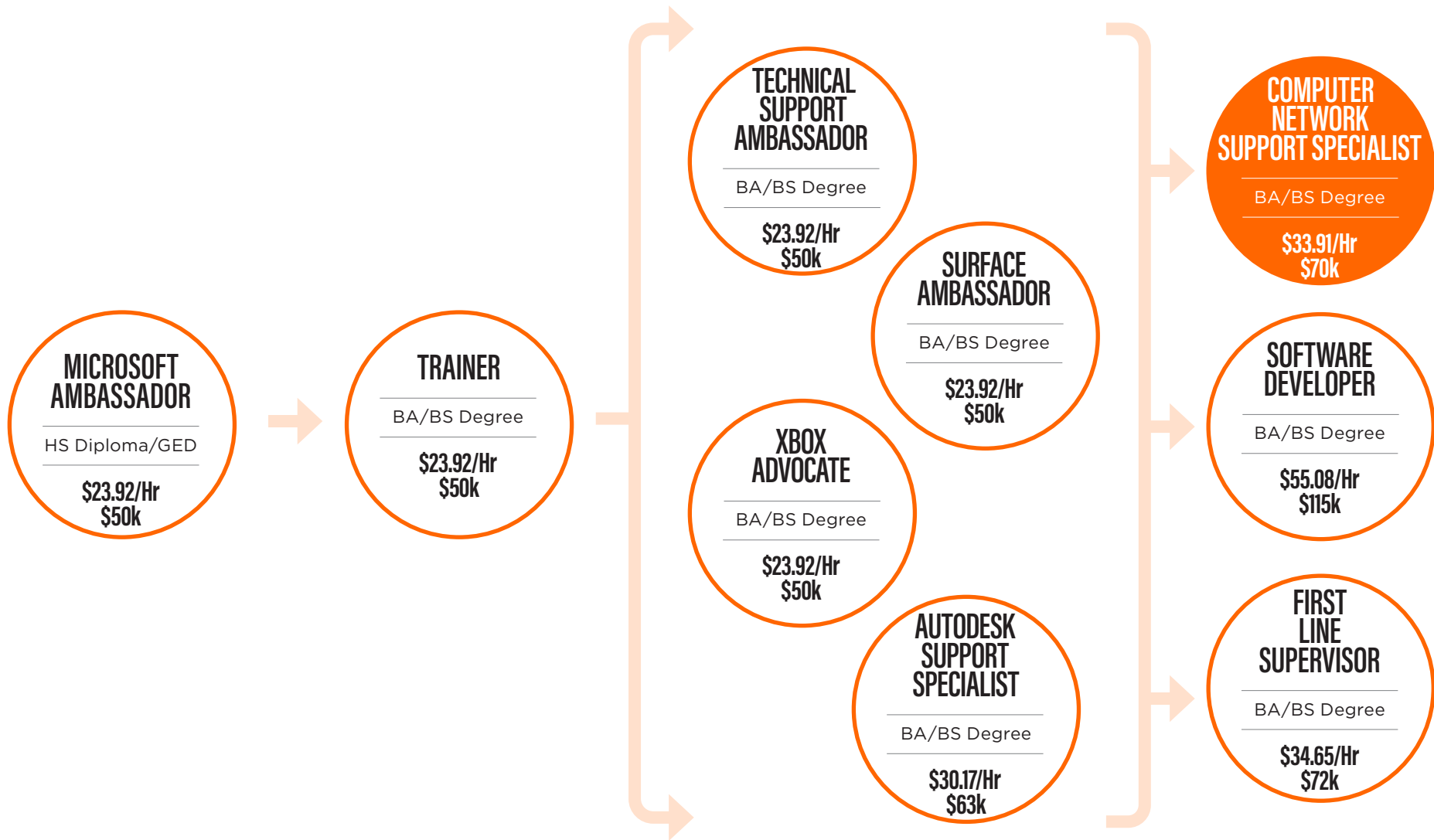


<b>JOB DESCRIPTION</b>	Analyze, test, troubleshoot, and evaluate existing network systems, such as local area networks (LAN), wide area networks (WAN), cloud networks, servers, and other data communications networks. Perform network maintenance to ensure networks operate correctly with minimal interruption.	
<b>KEY FOUNDATIONAL COMPETENCIES</b>	Analyze, Backup, Configure, Describe, Document, Explain, Install, Identify issues, Listening, Monitor, Research, Troubleshoot	
<b>TRANSFERABLE SKILLS</b>	Communications, Information Technology, Management, Customer Service Operations, Planning Detail Oriented, Prioritizing, Problem-solving, Troubleshooting	
<b>SALARY RANGE</b>	<b>Entry Level:</b> \$45,000-\$60,000	<b>Advanced Level:</b> \$60,000-\$85,000
<b>CREDENTIALS</b>	<b>Required:</b> HS Diploma/GED <b>Varies by Employer:</b> BA/BS Degree	<b>Certifications:</b> MS Certificate is preferred and varies per employer but generally not required
<b>WORK EXPERIENCE</b>	<b>Entry Level:</b> 1-3 Years	<b>Advanced Level:</b> 3-5 Years
<b>OTHER JOB TITLES/ROLES</b>	Computer Network Specialist, IT Consultant (Information Technology Consultant), Network Specialist, Network Support Specialist, Network Technical Analyst, Network Technician, Personal Computer Network Analyst, Systems Specialist	



### COMPUTER NETWORK SUPPORT SPECIALIST PATHWAY

The pathway below represents a typical career pathway in the ever-changing industry of Information Technology. The highlighted circle represents the critical occupation.





### JOB DESCRIPTION

Research, design, and develop computer and network software or specialized utility programs. Analyze user needs and develop software solutions, applying principles and techniques of computer science, engineering, and mathematical analysis. Update software or enhance existing software capabilities. May work with computer hardware engineers to integrate hardware and software systems, and develop specifications and performance requirements. May maintain databases within an application area, working individually or coordinating database development as part of a team.

### KEY FOUNDATIONAL COMPETENCIES

Verbal and written communication, Emotional intelligence, Problem solving/Decision making, Role ownership & leadership, Proactivity, Detail orientation, Innovation, Presentation competencies, Troubleshooting, Craftsmanship/Quality

### TRANSFERABLE SKILLS

Analysis, Problem solving, Assessments, Collaboration, Communication, Coordination and Supervision

### SALARY RANGE

**Entry Level:** \$88,000-\$114,000

**Advanced Level:** \$114,000-\$140,000

### CREDENTIALS

**Required:**  
BA/BS Degree

**Varies by Employer:**  
BA/BS Degree

**Required (Software Developer):**  
Some employers require Bachelor's degree in Computer Science, Software Engineering or related field; Master's in Computer Science or related field

**Certifications:**  
**Optional/Dependent on Specialty:** Associate degree in computer science, or software engineering technology or software systems engineering. Certificates in Computer Programming, SQL, Database Management, or other specific programming language, Security/PCI Compliance, A+, Net +, Security +, CCNA, CCNP, Cloud Architect, Specific Product/Vendor Certifications

**Certifications:**  
Web Development, DevOps, Mobile Development or Technical Stack, C++/IEE  
  
Professional Software Developer Certification (or license), Agile Cert (9 or 12 Credit), CompTIA Project+, CAPM, Microsoft SQL, Microsoft Solutions, Google Suite, AWS Suite, Scrum Master, ASQ, Microsoft Azure, Project Management Professional Certification

### WORK EXPERIENCE

**Entry Level:** 1-3 Years

**Advanced Level:** 3-5 Years

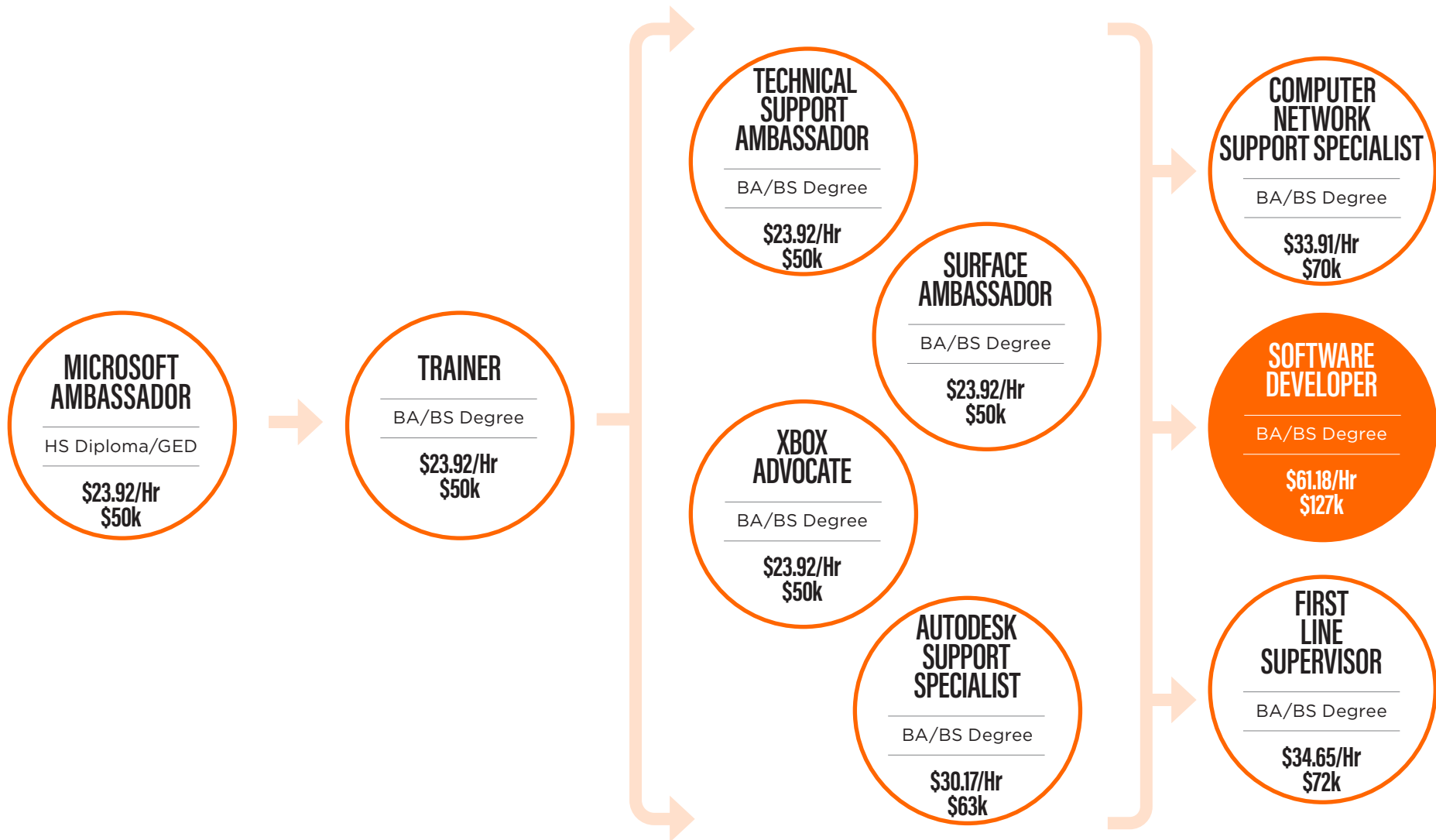
### OTHER JOB TITLES/ROLES

Application Developer, Application Integration Engineer, Developer, Infrastructure Engineer, Network Engineer, Software Architect, Software Developer, Software Development Engineer, Software Engineer, Systems Engineer



### SOFTWARE DEVELOPER PATHWAY

The pathway below represents a typical career pathway in the ever-changing industry of Information Technology. The highlighted circle represents the critical occupation.





### JOB DESCRIPTION

Directly supervise and coordinate activities of workers other than retail sales workers. May perform duties such as budgeting, accounting, and personnel work, in addition to supervisory duties.

### KEY FOUNDATIONAL COMPETENCIES

Customer and personal service, Coordination, Monitoring, Management of personal services, Written and verbal communication, Economic and accounting, Personnel and human resources

### TRANSFERABLE SKILLS

Interpersonal Relationships, Empathy, Patience, Teaching Others

### SALARY RANGE

**Entry Level:** \$45,000-\$60,000

**Advanced Level:** \$60,000-\$83,000

### CREDENTIALS

**Required:**  
HS Diploma/GED

**Varies by Employer:**  
BA/BS Degree

### WORK EXPERIENCE

**Entry Level:** 1-3 Years

**Advanced Level:** 3-5 Years

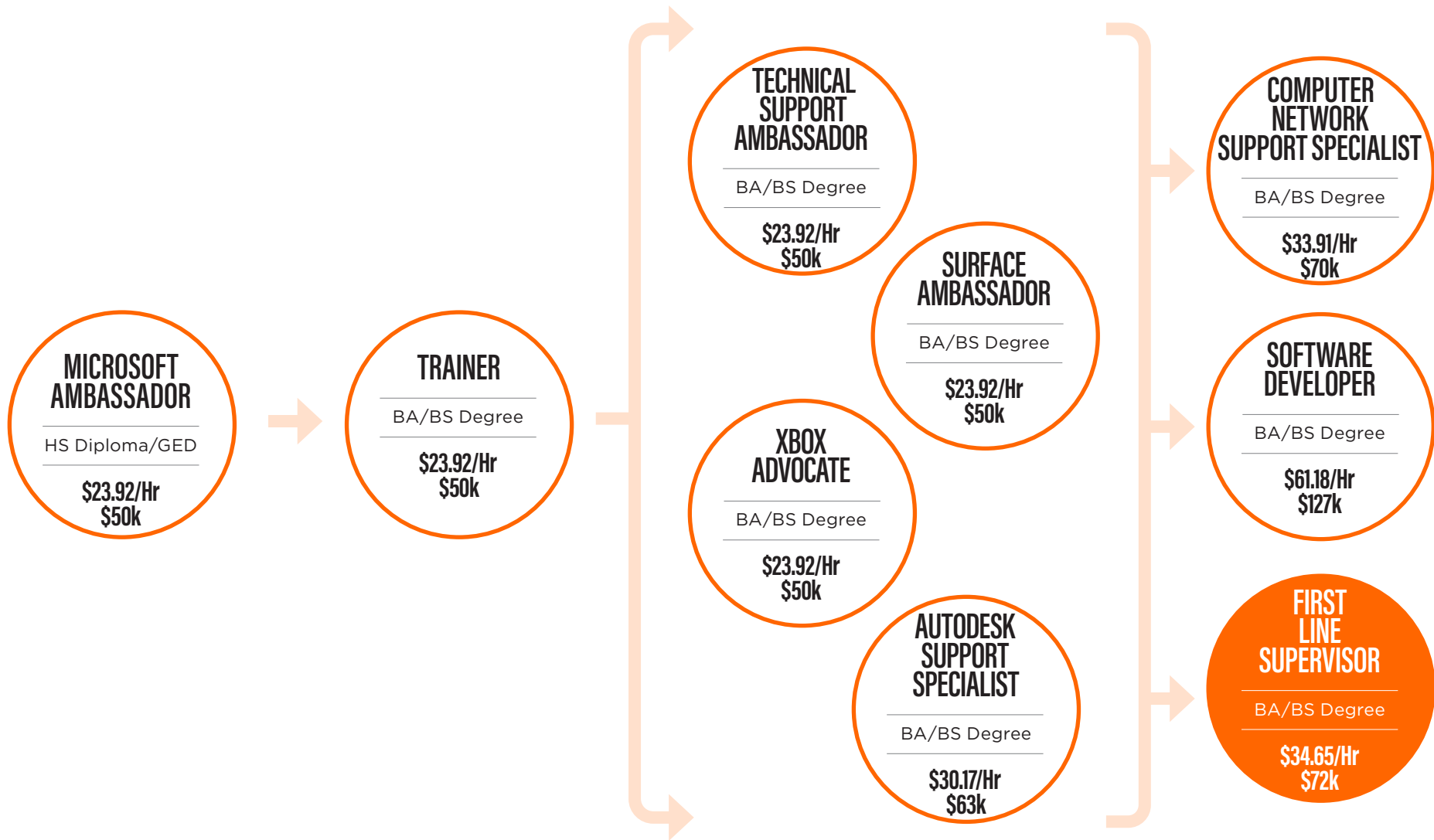
### OTHER JOB TITLES/ROLES

Customer Service Department Supervisor, Customer Service Supervisor, Driver Sales Supervisor, Information Center Supervisor, Inside Sales Supervisor, Reservations Supervisor, Sales Department Supervisor, Sales Leader, Sales Supervisor, Sales Team Leader



### FIRST LINE SUPERVISOR PATHWAY

The pathway below represents a typical career pathway in the ever-changing industry of Information Technology. The highlighted circle represents the critical occupation.



## ABOUT EDUCATION AT WORK

Education at Work (EAW) is a nonprofit organization with a critical mission. We help students pay for college, acquire valuable work skills, and build career connections. We bring students, universities, and employers together to build a stronger workforce by empowering students with the confidence and early career skills they need to be successful in the future. EAW partners with Fortune 500 companies to provide college students with resume-worthy work experience in a professional environment as we bridge the gap between what students learn and what employers need. Our students receive an hourly wage, tuition assistance, and professional coaching along with a flexible work schedule. Our goal is that EAW students graduate with less debt and the established experience needed to move into a full-time position in an industry they will thrive in. Learn more at [educationatwork.org](https://educationatwork.org) and [stradacollaborative.org](https://stradacollaborative.org).



## ABOUT THE COUNCIL FOR ADULT AND EXPERIENTIAL LEARNING

Recognizing that adult learners are the backbone of the U.S. economy, CAEL helps forge a clear, viable connection between education and career success, providing solutions that promote sustainable and equitable economic growth. CAEL opens doors to opportunity in collaboration with workforce and economic developers; postsecondary educators; employers and industry groups; foundations and other mission-aligned organizations. By engaging with these stakeholders, we foster a culture of innovative, lifelong learning that helps individuals and their communities thrive. A membership organization established in 1974, CAEL is a part of Strada Collaborative, a mission-driven nonprofit. Learn more at [cael.org](https://cael.org) and [stradacollaborative.org](https://stradacollaborative.org).



EDUCATION  
WORK