

# Software Engineering

## Career Roadmap

### MCCC Career Major

#### Required Courses<sup>1</sup>

Applications of AI  
Web Design & Development  
Programming & Software Development  
Database Applications Development

#### College Credit

Students have the opportunity to earn college credit in this program.

#### Goals

Earn High School Diploma<sup>2</sup>  
Earn Industry Certifications

#### MCCC Industry Certifications\*

Information Technology Specialist  
Internet Computing Core Certifications [IC3]  
Microsoft Office Specialist [MOS]  
CPR and First Aid  
Pre-Apprenticeship [ApprenticeOhio]

#### Job Placement | Internships

Software Engineer, Web Developer,  
Programmer, Mobile Application  
Developer, Business / Systems Analyst,  
Quality Assurance Analyst, Technical  
Support Specialist

### Technical Careers

#### Associate Degree<sup>3</sup>

Software Engineering, Programming  
& Software Development, Computer  
Science, Web Development, Mobile  
Application Development, Game  
& Design Development, 3D Digital  
Design, Information Technology

#### Advanced Certifications<sup>2</sup>

Microsoft Certified Solutions Associate  
Microsoft Certified Solutions Developer  
Microsoft Certified Solutions Expert  
COMP TIA IT Fundamentals  
COMP TIA A+  
COMP TIA Project+

#### Jobs with Work Experience & Associate Degree<sup>3</sup>

Software Developer, Web Developer,  
Mobile Application Developer  
Business / Systems Analyst  
Quality Assurance Analyst  
Technical Support Specialist  
Project Coordinator  
Database Applications Developer /  
Administrator

### Professional Careers

#### Bachelor Degree<sup>3</sup>

Software Eng., Computer Science, Mgmt. Info.  
Systems, Web Development, Mobile Application  
Development, Game Design & Development,  
3D Digital Design

#### Master Degree<sup>3</sup>

Software Eng., Computer Sci., Data Science,  
Info. Systems & Tech., Business Analytics,  
Project Management

#### Doctoral Degree<sup>3</sup>

Software Eng., Computer Science, Data  
Science, Info. Systems & Technologies,  
Business Analytics, Project Management

#### Extensive Work Experience<sup>3</sup>

Senior Software Engineer, Software  
Development Mgr., Solution / Enterprise  
Architect, Dir. of Software Development,  
Senior Business / Systems Analyst,  
Project Mgr., Senior Web Developer, Senior  
Quality Assurance Analyst, Senior Database  
Applications Developer / Administrator, IT  
Manager, Data Scientist, Chief Information  
Officer [CIO], Chief Technical Officer [CTO]

<sup>1</sup> Courses contain multiple subjects & languages  
<sup>2</sup> Certifications are extensive in some categories  
<sup>3</sup> Examples of degrees and work experience  
options are extensive

*\*Students who meet certification  
criteria will have the opportunity to  
test in their CT program.*

