COLUMBUS STATE

COMMUNITY COLLEGE

CSCC Mobile Apps Designer / Developer

CORE KNOWLEDGE

K1   Interface Design and Layout
- 1.1   Human computer interaction
- 1.2   User interface (UI) design
- 1.3   User experience (UX) design
- 1.4   Usability and testing
- 1.5   Cross-browser knowledge
- 1.6   Constructing UI from design mocks for multiple platforms
- 1.7   UI guidelines (per platform)
- 1.8   Additional?

K2   Programming Principles
- 2.1   Fundamental data structures and data modeling
- 2.2   Fundamental programming constructs
- 2.3   Object-oriented programming
- 2.4   Data structures fundamentals
- 2.5   Software design process
- 2.6   Software development process (agile/scrum)
- 2.7   Software testing and validation
- 2.8   Continuous integration systems (ie. CircleCI, Jenkins)
- 2.9   Additional?

K3   Experience with Core Languages
- 3.1   Java and XML (Android)
- 3.2   Swift and/or Objective-C (iOS)
- 3.3   HTML,CSS, Javascript (PhoneGap, Ionic, Xamarin)
- 3.4   JSON (for API comm.)
- 3.5   Additional?

K4   Service/API Knowledge

    4.1   Networking pricinples
    4.2   Client communication with RESTful API
    4.3   Oauth implementation
    4.4   Basic security practices
    4.5   Database/model design
    4.6   Database management concepts
    4.7   Database query languages
    4.8   API architecture and implmentation
    4.9   Service security principles
    4.1   Additional?

K5   Advanced Topics

    5.1   Mobile analytics
    5.2   Mobile app financial models (including advertising, freemium, in-app micro upgrades)
    5.3   Deployment process (for all platforms)
    5.4   Additional?

K6   Professional Growth

    6.1   Portfolio with samples of completed mobile applications and best development projects
    6.2   Soft Skills/Employability Skills
    6.3   Additional