



AppConnect NW: A Collaborative Network of Seven Community and Technical College Programs in Software Development

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ABSTRACT

AppConnectNW is a network of seven community and technical colleges in the Puget Sound offering applied baccalaureate degrees in software and application development. As the need for qualified developers contains to increase, the AppConnect NW colleges are preparing the next generation of the workforce with the most in-demand skills, technologies, and hands-on project experience. The network is engaging with the Washington Technology Industry Association, regional employers, local high schools, and graduate schools to increase awareness of applied bachelor's degree pathways and support the talent pipeline. Faculty collaborate across colleges on industry-driven curriculum that prepares students for careers in technology.

The purpose of this panel is to share some of the initial results of the project (year two, out of a four-year project) and to share opportunities for further work in developing similar regional collaboration networks.

CCS CONCEPTS

• **Social and professional topics** → *Information technology education; Software engineering education; Employment issues.*

KEYWORDS

Community college, information technology education, software engineering education, applied baccalaureate, community college baccalaureate, coordination network

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1 INTRODUCTION

AppConnect NW is a network of seven community and technical colleges that supports the technician pathway from an applied associate's degree to an applied baccalaureate degree, the Bachelor of Applied Science (BAS) degree in Software Development. It creates a new faculty-led network that will engage with Information Technology (IT) industry leaders (facilitated by the Washington Technology Industry Association), regional employers and local high school teachers and counselors. Data produced through AppConnect NW activities will inform the numerous states and community colleges that are creating new BAS degrees in software development. Best practices will be disseminated nationwide including college consortium collaboration strategies that meet industry expectations; curriculum development strategies that prepare under-served students with technical and soft skills to succeed in a competitive, fast-changing industry; and recruitment strategies that successfully support bringing under-served students in software development programs.

The goal of AppConnect NW is to improve the high-tech information technology workforce by growing the diverse BAS Software Development student body and preparing them to succeed in jobs upon graduation, while also expanding regional recognition of an emerging type of applied degree. The partner colleges in the AppConnect NW network are engaging with the Washington Technology Industry Association (WTIA), regional employers, regional colleges and universities with graduate programs in IT, and local

high school teachers and counselors to create a new, faculty-led network that supports this BAS pathway.

2 INITIAL RESULTS

The AppConnect NW member community and technical colleges are Lake Washington Institute of Technology, Green River College, North Seattle College, Bellevue College, Renton Technical College, Cascadia College, and Edmonds Community College.

As an indicator of scale and students served, a 2018-2019 academic year snapshot of the AppConnect NW collective BAS student body consists of 364 total students (headcount), of which:

- 46% are age 30+
- 43% are students of color
- 35% are low-income / Pell Grant recipients
- 22% are women

In the past year, AppConnect NW held an industry roundtable to review curriculum, skills, and competencies to ensure that curriculum was aligned with industry needs. The resulting document has been shared with other colleges locally and nationally.

AppConnect NW is working closely with the WTIA to source internships for community and technical colleges, identify industry experts to teach in the programs, and build a network of industry advocates that will help BAS students access job opportunities.

Since the beginning of the project, the AppConnect NW team has interacted with more than 40 organizations to inform them about BAS degrees and the AppConnect NW software development programs, bring industry experts to the classroom, and identify opportunities for internships, jobs, and graduate study.

3 PANELISTS

3.1 Brianna Rockenstire (Moderator)

Because community college applied baccalaureate degrees are a relatively new academic offering, there remains a low level of awareness and recognition by industry at large. AppConnect NW is approaching industry collectively to build awareness of applied baccalaureate degrees and the software development programs of the member institutions. Through these joint efforts, the AppConnect NW colleges have a more compelling pitch to present to industry partners and more robust enrollment and graduation data.

3.2 Thomas Abbott

In Fall 2017, Lake Washington Institute of Technology (LWTech) kicked off the first quarter of the BAS in Computing and Software Development (CSD). LWTech previously offered BAS degrees in other disciplines, but not in computing. As the faculty director of the new CSD program, I was immediately plugged into a network of educators at other institutions through AppConnect NW. AppConnect NW has provided a forum for faculty to share experience and knowledge on building robust and scalable programs.

3.3 Brian Bansenauer

The BAS Mobile Application Development degree at Cascadia College welcomed our first students in Fall 2018. As the lead faculty, my focus has been to design curriculum that blends a strong conceptual base with practical experience in current development processes

and tools. Since these BAS programs are relatively new, amplifying our message through AppConnect NW has allowed us to reach further with industry partners and high school students. Together, we also make a stronger case for the potential of BAS degrees to attract, engage, and prepare students for success across a greater diversity of educational backgrounds, socio-economics, race, and gender, much needed in the IT sector.

3.4 Steven Balo

North Seattle College launched its BAS Application Development degree in 2014. My role is that of Internship and Employment coordinator. One side of this role is student-facing, aimed at readying the program participants for the internship and job market. The other side is employer-focused, where I work on cultivating new contacts, finding suitable engagement strategies, and maintaining alumni relations. AppConnect NW allows each member school to have a stronger voice than we would have alone, which in turn allows us to enhance our service to both students and industry partners.

3.5 Kendrick Hang

The BAS Software Development program at Green River College launched in Fall 2014. In my role as lead faculty member of the program, I appreciate the genuine collaboration between faculty and staff in AppConnect NW, which allows us to speak to industry and university partners with a unified voice. We work together to ensure we are coordinated, while also recognizing the individual strengths and focus areas of each member program.

3.6 Timothy Mason

As the Director for the BAS Cybersecurity and Networking program and the Division Chair for Technology at Green River College, I have been working to prepare BAS students for seamless transition to employment and to create pathways to graduate studies at local universities. Currently, our programs work closely with the University of Washington, Tacoma campus to provide quality graduates into their Master of Cybersecurity and Leadership program.

3.7 Stefanie McIrvin

Renton Technical College (RTC) began its BAS program in Application Development in 2015. As the Director of BAS Programs at RTC, my role is to support faculty in the curriculum development process, oversee the admissions process, and think strategically about the long-term support of our applied bachelor's degree program across campus. The AppConnect NW collaboration has proved to be invaluable in supporting efforts around internship development, community connection, and faculty support, taking our program to the next level.

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