Computer Science & Information Technology Programs

FORT MEADE ALLIANCE FOUNDATION

WHAT

The Fort Meade Alliance (FMA), in partnership with public, private and governmental organizations, seeks to expand existing initiatives and create new programs dedicated to ensuring students, members of the workforce and transitioning military have the skills and experience needed to fill open positions in the computer science and information technology (CS/IT) fields.

Some examples of FMA efforts to develop CS/IT programming include:

STEM Core

With components at the high school and college level, STEM Core seeks to re-introduce remedial students to the CS/IT pipeline by providing them an opportunity to accelerate their mathematics education while receiving necessary support from a dedicated mentor. The program targets students who would not have considered a STEM career due to their prior struggles in mathematics, ensuring they have the mathematical foundation necessary for success in CS/IT. STEM Core increases the likelihood that students complete a degree by decreasing the amount of time they spend gaining necessary proficiencies that often serve as a barrier to completion of Calculus I.

Meade Cyber Lab

Located at Meade High School and made possible through a Department of Defense Education Activity (DoDEA) grant, the Meade Cyber Lab provides students the opportunity to use cutting edge technology and learn relevant industry skills. In its inaugural year, the lab will provide a space for classroom teachers to introduce students to cyber-security through one-hour sessions with a dedicated CS/IT educator and guest lectures from industry personnel. Capitalizing on the enthusiasm built in these sessions, in following years, students may enroll in an expanding repertoire of dedicated CS/IT coursework completed in the Cyber Lab.

WHY

Maryland has more than 20,000 open positions just in cybersecurity, making it clear that demand far outweighs supply when it comes to candidates who have the skills needed to fill these positions. The Defense Information Systems Agency (DISA), for example, has an annual budget exceeding $10 billion and is steadily growing its workforce of over 8,000 civilian and military personnel to support its essential role in America's cyber security. Vice Admiral Nancy Norton, Director of DISA and Commander of the Joint Force Headquarters Department of Defense Network (JFHQ-DODIN), is looking for "anything you can do to help build the pool of recruitable candidates for our workforce." The biggest challenge she faces is "recruiting and retaining the right talent."

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Frequently, CS/IT curriculum lags well behind current-day technologies and capabilities. Cyber curricula offered through grade schools fails to reach enough students, inspire and enable would-be cyber professionals, or align with the CS/IT needs of employers. The Fort Meade Region has a shortage of primary and secondary school teachers with CS/IT training. The number of CS/IT classes is limited, and CS/IT education is typically restricted to STEM classes rather than being distributed through K-12 curriculum.

Many teachers — even those within STEM fields — and guidance counselors lack sufficient knowledge of the full range of CS/IT jobs and how those jobs expand far beyond the intelligence and defense sectors to energy, healthcare, law, retail, hospitality and other industries. Consequently, those teachers and counselors can't alert students to many career options. As responsibilities across defense and other federal agencies grows, the talent shortage will also continue to grow, unless there are specific initiatives and programs put into place that address this shortage and direct additional students to the CS/IT pipeline.

WHO

The FMA has worked in collaboration and with the support of the following organizations in efforts to introduce students to and expand the workforce pipeline in CS/IT:

★ Anne Arundel Community College
★ Anne Arundel County Public Schools
★ Baltimore City Community College
★ Community College of Baltimore County
★ Digital Harbor High School

★ Department of Defense Education Activity
★ Forest Park High School
★ Howard Community College
★ Meade High School

HOW YOU CAN HELP

★ Provide opportunities for students to complete paid internships with your company.

★ Serve as a mentor to a group of students working to solve a problem faced by your company.

★ Join us as a speaker to describe your industry and your organization's work.

★ Join an advisory board supporting educators in designing curriculum that addresses the evolving needs of the industry.

★ Provide a donation to our Education and Workforce fund that will help ensure that students in the region continue to benefit from opportunities to engage in education designed to prepare them for CS/IT careers.

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For more information about the Fort Meade Alliance Foundation, visit www.ftmeadealliancefoundation.org or call 410.850.4940.