On April 22 and 23, 2019, I participated in an externship at GE Power, a software development company in New Orleans. My contact, Brandon, set up a great schedule for me. My time was spent either shadowing him and his team, or conducting interviews with a wide variety of people throughout the company. At the end of my second day, I felt energized by what I’d learned and full of ideas for how to tailor my pedagogy to better prepare my students to be successful in a tech company.

**Observations**

Software developers at GE Power work in teams, using a version of the Agile methodology. This approach means that teams work in two- to three-week iterations, known as sprints. During each sprint, the team works on a manageable number of user stories (or features) of the software. They meet daily to get updates on progress, assign user stories, iron out obstacles, etc. Everyone on the team has a specific role and they use an application called Rally to track the progress and accountability for user stories. At the end of each sprint, completed user stories are added to the release-ready version of the software, and a new sprint, with new (or backlogged) user stories begins.

The team I observed was in the midst of an experiment. Management had partnered them with a small software development company in Atlanta for their current project. The Atlanta company believed strongly in pair programming, so the GE team was working in pairs all day, every day. This was a big shift from how they were used to working and it was proving challenging. However, they had opportunities to talk about it and everyone, even people I know were struggling to adapt, acted professionally.

**Interviews**

I spoke with team leaders, software engineers (junior and senior), managers, the human resources director, the communications director, and a people leader. They varied widely in terms of experience, background, race, and gender. Interviews were 20-45 minutes. I started by introducing myself, letting them know I had experience as a software developer, and then asking them what tech skills and soft skills they thought were most important for an entry-level person to be successful at GE Power.
SOFT SKILLS

COMMUNICATION
⇨ code-switch, present your work, explain the value of your work, explain technical work to non-technical people

TEAMWORK
⇨ collaborate, keep a cool head, resolve conflicts, work with others who don’t look like you, code in pairs

CONFIDENCE
⇨ be fearlessness, push through being intimidated, don’t put pressure on yourself to be an example of your race/gender, don’t become a product of your environment, take pride in your creativity

PROBLEM SOLVING
⇨ be resourceful, be adaptable, think methodically and analytically, embrace challenges, love puzzles

HUMILITY
⇨ admit and learn from mistakes, known when you need a mentor, be able to receive critiques without being offended, know your strengths and weaknesses

CURIOSITY
⇨ have a burning desire to understand how technology works

AGILITY
⇨ show initiative, stay on top of current technologies, show ability to learn new things

CREATIVITY
⇨ be passionate, think outside the box

TECH SKILLS

FLEXIBILITY
⇨ don’t get stuck in just one framework

RESEARCH
⇨ know how to find the information you need using search engines

USABILITY
⇨ always keep the user/customer in mind, design for maintainability and reliability

KNOWLEDGE
⇨ Java
⇨ JavaScript
⇨ Angular
⇨ HTML
⇨ CSS
⇨ SQL
⇨ git
⇨ microservices
⇨ cloud services

Classroom Application Ideas

• design all learning to be project-based
• have students work in teams, all the time
• use some version of Agile to define roles and foster daily communication about progress and obstacles
• reward resourcefulness
• encourage creative problem-solving