

Jennifer Polack (computer science professor) interviewed by Lexi Jackson on March 12, 2024

Lexi Jackson: First I want to begin by getting your permission to record this interview and upload it to our website. Is that all right?

Jennifer Polack: That's fine.

LJ: Okay, thank you. So I guess the first thing I wanted to talk about was your background information, like your education history and career history. So if you wanted to begin with that.

JP: Okay, I got my bachelor's from the University of Scranton in Pennsylvania, my master's from Pace University in New York City, and then I got my PhD from the University of South Florida. All of them were in computer science except my PhD is computer science and engineering. I have been, my first teaching job was for the Coast Guard Academy on Governor's Island outside of Manhattan. And then I worked for Pae University teaching Microsoft Word, Excel, all that. And then I became a lecturer at the University of South Florida in 1995. They had a satellite campus in Lakeland, Florida.

LJ: What's a satellite campus?

JP: So the way Florida used to be is that they had seven major institutions and University of South Florida was one of them. The main campus was at Tampa, and they had branches in, let's say, St. Petersburg or Lakeland, Florida, Polk County. So they had, so a satellite campus is one of

those. They've changed things now. So where I used to teach now is called Florida Polytechnic University. So they took the satellites out and created either junior colleges out of the satellites or they created two new four-year institutions. And so that's why the place I used to teach at does not exist anymore. So, I came here in 1998 to the University of Mary Washington. Well, at the time it was Mary Washington College.

LJ: So when you came, was Ernest Ackerman still a professor here?

JP: Yes, he was. He was one of the people that hired me. Everybody that hired me was my parents' age. I was 27 and so everybody was 50 or plus when they hired me and there were only five of them and now we are 10.

LJ: Oh wow. Is there anyone still here?

JP: No, I'm not the oldest in the department, but I've been here the longest in the department. After me, Professor Anna Waltz came. She was two years after me and then we have some that we hired that left and so it's, no, I'm the oldest being here. So I've been here and now I'm the 53-year-old. So I've hired everybody here basically.

LJ: Okay. So when you came here, was the computer science program in James Farmer or was it still in Combs?

JP: No, it was in James Farmer, but it was called Trinkle.

LJ: Oh, right.

JP: Yeah. We were in Trinkle Hall and my, actually my office was diagonally across from where we are right now. And when Ernie retired, this was his office and I took it over. So it used to be B18, now it's 017 with the whole remodel. Ernie's still around. He lives directly across the street.

And we created the Ernest Ackerman Award for seniors. Basically whoever contributed the most to the department was, not only contributed the most to the department, but also, you know, was a very good student because we didn't have anybody in the program for top computer science student. And we didn't realize that you couldn't associate money with being a top computer science student.

So because we have, you know, a top computer science scholarship, but because they receive money, they can't go in the program. So we created probably around seven years ago, the Ernest Ackerman Award. And it's really after him because he started the department and he came out of math.

LJ: Okay. Another thing is the creation of the IT department. Do you know when that started?

JP: No idea about that. We have a lot of run-ins with the IT department, not saying that they're bad people. It limits what we can do. A lot of times they put up firewalls that we can't go through. So the bigger schools like Virginia Tech don't have as many problems. Like I have a

class that I have to create not-for-profit organizations and so websites and web databases. And we would like to do it off of our own servers here at UMW, but UMW can't host them and then they want to put like every lock and chain on them. So basically we purchase like our own someplace else instead of here. So I know nothing about IT. I love them, but they are sometimes something that we, I guess, fight with.

LJ: Yeah. I guess from the interview in 2007, Ernest Ackerman was talking about how before the IT department was created, people would come to the computer science department for help. Does that still happen sometimes?

JP: It still happens. Some people think that we can fix every computer possible and that's not really computer science. I mean, yes, I have in the past built my own PC and I usually can fix things that other non-technical people can't fix, but that's not what we learn when we get our doctorates in it. I mean, we just have some, I guess, easier for us technical experience, but we'll tell you the same thing that we tell others. Turn the machine off again, turn it back on again and see what happens. We say the same things I think that IT says, but usually for us when we use IT, it's usually minimal because we typically can fix our own computers just because while we don't learn it, we have the technical know-how to figure out how to do it.

LJ: So how do you think the curriculum has developed with technological advancements since you've been here?

JP: We've changed three or four times. We're not like other majors. We have to keep up with technology, so we have to change with technology. What I teach now and what I taught 25 years ago, the building blocks are the same, but the language that we use, the way we program and what we do is completely different. When I first was hired here, I was asked to teach, I think, C++ because it was one of the newer languages. Now it's been around for 25 years and we used to teach Ada here and not many schools taught Ada.

LJ: What's that?

JP: It's a programming language.

LJ: Okay.

JP: And the reason why they taught it here was because it was created for Naval Warfare, well not Naval Warfare, but the Department of Navy. So they wanted everything to be programmed in this language called Ada. They have now since cut that requirement because it was so limiting and now they program in other things such as Python, Java, C, C++. So what I taught back then, as I said, the fundamentals are still the same, but not necessarily how you do things and how you work through things.

So some of the things were, we used to have to host everything here on campus. We don't do that anymore. Hosting means that it resides someplace. My students right now are creating projects for not-for-profit organizations. So we used to have a server called Paprika and it used to live on

Paprika. Well now it lives in the cloud. So cloud software wasn't a thing way back 25 years ago and now it is. So we have to, in our discipline, we kind of have to keep up with technology.

So when you talk about using AI in classes, well we have to use it because we have to be aware and have our students aware how to use it to their benefit because if they were not using it in industry, then they're not harnessing the power of it for their own projects.

LJ: Do you teach any AI courses?

JP: That's not my background. My background is graphics and games. I teach those. We have other department members that do teach AI. I use AI in graphics and games. So when you're building games, if you have an enemy, the enemy is all created based on artificial intelligence. All the decisions that they make, the way the enemies go, where they come towards you, that's all based on AI. So I use it but I don't teach it. I teach it in the game programming class as it relates to game programming. But I don't teach 'AI the course.' That's not me.

LJ: Another thing that I wanted to talk about, the diversity of the computer science department.

Would you say that it's become more diverse since you've been here? Like more females?

JP: No, actually when I came here, there were three females and three males. So you know, we were, we have, in a positive way, we have been female heavy since I've been here. Right now, yes, we are not. We are the majority more male right now. However, the diversity has changed.

When I first came here, everybody was white and that was kind of jarring to me because I came from grad school where I was the only white female in my research group and there was only one other white male. And then you had a lot of Asians, a lot of Middle Easterns. So for me to come to, there were only Caucasians around, that was like, I didn't know what to do.

And I would say in the last five years that we have changed in a sense that we have hired, I'm trying to count now, one, two, three Asians and we've hired another Asian for next year. And out of the Asians that we've hired in the last five years, two are males, one is female and the one we're hiring is female. So we are starting to look more, at least closer to what computer science PhD students look like because having a department of all Caucasians is not what the discipline is.

So we're changing, but we are very much behind, I would say, where computer science as a whole is. Student population, we're still behind. I always find it very different when I walk into a class and have a lot of females in there because I walk into my classes and it's a lot of males. So I do teach digital storytelling and in my digital storytelling class right now, there are 13 females and one male.

LJ: Oh wow.

JP: Right. So that for me is not normal. In my software engineering class in the morning, I have no, I have 12 males, one female. And then in my afternoon section, I have, I think, I have 13 males and seven females. And I was lured that I was like seven females in one section. So even

though the campus is majority female, I don't see that in my day. Even with always having a good representations of females in the department, I don't know what it is. So our diversity, as I said, the faculty, we're at least starting to have a more diverse faculty. I definitely see more diversity of male students.

It's not all mostly Caucasians, which Mary Washington happens to be a large population of Caucasians. Yeah. But we're starting to, I mean, I would say in the last 10 years, we definitely have a lot more Asians and a lot more Middle Easterns. And I'm hoping one day that the females take over, but even in the industry, computer science education, we're always talking, how can we get more females into it? How can we get more females into it? And nobody's come up with the magic pill yet of how to solve that.

LJ: So next I'd like to talk about just like campus as a whole. What would you say, like physical description wise? What has, what do you think has changed the most?

JP: We didn't have the, Seacobeck used to be the dining hall when I came here.

LJ: Oh, right. I do have that. Was it the Green Room?

JP: Yes. It was the faculty dining room, which was a really nice place for all of us to get together and kind of see people from other parts of campus. The other thing that has changed, we didn't have the gym, I don't know what it's called. And we didn't have the UC, not the old gym. We had

Goolrick. We had, but we didn't have where you work out now. And the other thing we didn't have, we used to have a building called Chandler that way. And now it's the UC.

LJ: Oh yeah.

JP: Those things have definitely changed. It doesn't really, since I'm on this end of campus, the only thing for me that really physically has changed is that, so I used to be able to look out across and see Chandler hall, and now I see the UC. It's not, I guess it's not as big as a change as some campuses. Because when I go back to my undergraduate university, Scranton, it is completely transformed. And I don't think that Mary Washington has completely transformed. I mean, we have some really good additions, but it's still, the campus is still, you have the same look and feel to it, which is nice.

LJ: That's good.

JP: Yeah, it is. I mean, I like the look and feel of the campus.

LJ: What about this building? When did they start the renovations down here?

JP: Yeah, so we just moved back in, uh, in the summer of 2023 and it was supposed to take nine months. We were not in here the fall of 2024, 2022 and the spring of 2023. And we had to move all our stuff out like mid semester, I think spring 2022.

LJ: What were, what was the reason?

JP: Because they were starting to do stuff. Like they couldn't use certain parts of the building.

LJ: Okay.

JP: So it's only this floor. But we had grant money and we had said, we finally said to them, 'if you want us to compete with other schools, with the look and feel of the technology place, you need to back up what you're saying.' And that's when the renovation finally, they, you know, we had some money from the state and a grant and the school finally put us as a priority.

It's very, it's a lot more modern. Yeah, they really went with the modern vibe. I'm not so keen on the gray walls, but you know, the carpet and the furniture were all picked to try to make us look more modern. Even our whiteboards have changed to be more modern. They had, they hired some consulting firm to try to modernize what we look like and we all don't fit in one space anymore. So I would call this the front office, like the front suite of computer science. And then there was a back hall, um, that had the other faculty members there. We don't fit in one space anymore.

And when I came here, that back hall used to be IT. Oh, I just, you know, it was the back hall way back when. Now that changed over the years. Then, you know, IT left and they went over to the HCC and then we had some math faculty back there. We had classics, religion, and

philosophy back there. But when the reno happened, the basement became ours. I don't know how people feel about the basement.

LJ: There's still lots of windows.

JP: Yes. I mean, so here in Virginia, being in the basement is not necessarily being in the basement because yeah, the back half of going out on the first floor. So I have windows. So yeah, I had windows across the hall too, but like I had to look up cause it was the front of the building. Students used to come by and like bang on the window and scare the living crap out of me. They'd be like, 'Hey, Professor Pollack.' And I would jump up no matter how many times they did it. So I'm glad that students can't bang on my windows anymore. Cause I, I easily like jump up. So that's something that's changed.

LJ: Do you think the renovation has helped pull in more students?

JP: No, not yet. Um, I think not, not the reno. I think we have altered our curriculum again. We used to only offer computer science one track as the major. Then we did computer science and it had three tracks. It was traditional computer science. It was computer information system, which is more like business. And then it was GIS: geographic information systems. Then that brought our numbers back up and the GIS program, we were having problems supporting it with geography. So we didn't offer it anymore. And the CIS, once again, we were having problems working with business, unfortunately. So we went back to traditional computer science.

But then in the last, I guess, um, I'm trying to think Andrew's been here seven years. So, when we hired Andrew Marshall, he is cybersecurity and he came in and within the last seven years, what we've done is we have two tracks. Again, we have computer science and now we have cybersecurity. So we have three faculty members now that are cybersecurity, Xin Wen, Veena and Andrew. They are computer scientists, but they specialize in cybersecurity, just like I specialize in graphics and games. But what that has given us the opportunity is to have two tracks students can choose.

And I think the cybersecurity track has brought in new and different blood into the major, which is, you know, we're always, as I said, trying to stay on edge of what technology is offering. So we can't be stagnant. So I think not the renovation. I think the addition of a cybersecurity track has increased people's interest in us.

LJ: That's good.

JP: Yeah.

LJ: I guess for my final question, do you have any hopes for campus or your department in the future?

JP: Well, we're going through a reorg right now and we're not very happy with the reorg right now. So our hope, I mean, they're trying to put up changes from the college of arts and science to a new college with business economics and math. And we don't feel like we fit in there because

we have the same, you know, philosophy of that, you know, we research, we research, we publish, we have building blocks that are part of arts and science and we follow more along the arts and science pedagogy versus business is very different than us. So the hopes is that we, in this reorg, we would not be in this new college of computer science, business economics and math, which we don't know the name of and stay in the traditional college of arts and science. So I, that would be a hope.

But I am also, I'm more of a realist. I think it's a done deed. I think it's a done deed. So, I'm just trying to, I always fight for the department in a sense. So I'm trying to put us in the best position in this new model of where we are. So, but the hope is that, I mean, I hope that, you know, if I have 25 more years that Mary Washington's still around, the student population as a whole is decreasing in the United States. Um, we have less, I mean, you had your baby boomers, then you had your gen Xs. And there are less students to be had divided between all the universities that are out there. And there are many universities that are closing.

There are programs being cut and that's part of this reorg is to stay relevant, stay fresh and find our niche to get students to come here. And so I guess overall, I mean, I want Mary Washington to survive this. It's not a downward spiral. It's just, there's less physical students. And that the computer science department continues to grow. And I'm not just talking about like getting bigger, but the only way computer science survives is if you stay recent with technology and recent with how technology is going to impact society.

So those are, that's mine. So one Mary Washington stays, computer science stays. So both of those, because it'd be sad if they disappeared.

LJ: Yeah.

JP: And especially after giving, this is my 25th year. So giving 25 years to someplace I don't want to see.

LJ: Right. Well, I have hope for it.

JP: I mean, it's just hard because like the University of West Virginia, they just cut like 26 programs.

LJ: Oh wow.

JP: They won't go out. They won't go out of business because there's not many state institutions in West Virginia, but they had, they cut a lot of their programs. And there are schools that are closing because they financially can't afford it anymore. And part of, I understand why the school is doing this reorganization, not happy about where we're being put, but I understand that it's for the survival of the college itself. And that's why I'm kind of like, well, if it has to happen, and this makes us survive, then I'd rather have that than have people get fired.

LJ: Yeah, that's true.

JP: I want everybody to still have a job.

LJ: Well, thank you so much for your time.

JP: You're welcome.