

“This (fellowship) has really opened my eyes up to see how much the government does for us and how there’s a role for everybody in government, especially through the civic tech aspects. That’s just a pathway that I wasn’t aware of before and one I think a lot of people should consider.”

# EMBRACING CIVIC TECH

By Rebecca Patrick

## Presidential Fellowship Focuses on Inclusion

Maria Patterson is a pioneer.

A woman of color in two STEM (science, technology, engineering and math) fields, she is passionate about advancing equity and inclusion within those communities. She volunteers at local schools and the Children’s Museum of Indianapolis to share her story and motivate.

With her Ph.D. in astronomy, Patterson worked with NASA to build a machine-learning pipeline for analyzing satellite imagery and detecting water in flood-prone regions of Africa. (Machine learning is a type of artificial intelligence or AI that allows software to become more accurate at predicting outcomes.)

Her technology talents most recently were on display locally in developing data concepts for High Alpha Innovation.

*BizVoice*® magazine spoke with Patterson on her latest career adventure: embracing civic technology as a Presidential Innovation Fellow (PIF). Part of the 34-member 2021 cohort, she is acting as an entrepreneur in residence with the U.S. Department of Labor’s Office of Disability Employment Policy (ODEP) to generate inventive solutions for public good.

***BizVoice*®: What was your motivation to apply to the PIF program?**

**Maria Patterson:** “I knew about (it) because I worked with a few presidential innovation fellows in the past, and I thought it was really inspiring because they were able to make an impact or a long-

term impact in a short amount of time. They’re really using a different skill set and partnering hand in hand with the federal agencies to drive the mission of improving the lives of the public.

“A big component of what they were doing was building up a community – solving their problems. That was really cool. Doing meaningful work that’s really long-term sustainable with community around it. That’s very important to me.

“The mission of the program is really amazing: passion meeting purpose. I find that really energizing ... and thought of the program as a way for me to use my skill set through civic tech. I don’t think I would’ve necessarily seen how I could be useful in government otherwise.”

**BV: What is the overall goal of your assigned federal agency, ODEP, as it relates to your project?**

**MP:** “ODEP has been working on policy implications of emerging tech for a while and developing protocols to help make sure HR-related AI tools are not unintentionally biased against people with disability. So, you can think about different emergent tech using AI; it can be really great to help empower people with disabilities to succeed in the workforce. Think about innovations like auto captioning tools or image recognition for navigating an environment. Those use AI in a way that is going to work for everyone inclusively.

“More companies – especially those that have been really rapidly adopting emerging tech – are starting to use more AI to make decisions about people, especially for job candidates and employees, which is what the Department of Labor is interested in. But if you have AI that’s used to make decisions about people and it’s not designed from the start inclusively for all, it has the potential to be

awful and to discriminate by compounding systemic bias and may not be inclusive of underrepresented groups.

“So, the mission of ODEP is to make the future of work open to all. And it’s great to start with people with disabilities because they make up the largest and the most heterogeneous minority group.”

**BV: What specifically is your charge with ODEP?**

**MP:** “I serve as a sort of technology translator. I help deepen the understanding of how AI works and bridges the conversation between policymakers and AI users and AI developers across the federal government and industry (and elsewhere). We’re also engaging with the tech community to educate and to build technical products that are inclusive of all, including the disability community.

“The idea there is that if we’re going to influence how AI is built, we need to work directly with developers and with data scientists to have a common understanding of what fair and inclusive and equitable AI means. And then how that actually translates into a technical application.”

**BV: Can you give an example of how practically that would take place?**

**MP:** “I’m partnering with some civic tech student groups that are doing tech for social good projects. We’re working through things together – thinking about how tools and HR, maybe job descriptions and that sort of thing, might be unintentionally biased and partnering with people with disabilities to be the sort of subject matter experts into building those tools.”

**BV: As I understand it, your PIF term runs for one year definitely, but may be extended to two. What has been the most exciting aspect of your time so far?**

**MP:** “Everything. This is my favorite job – don’t tell the High Alpha folks! I’ve gotten to see firsthand how the government and career federal employees and the agency leaders work to serve the public. And I joined in that mission to hopefully be useful. That’s really rewarding.

“I also engage with all the other PIFs and I’m watching the progress that they’re able to make in the partnerships with their agencies. . . . They have such a wide variety of backgrounds and they are all intimidatingly impressive. But they’re very mission driven and humble and welcoming. It’s been a lot of fun.”

**BV: What have you gained from your fellowship; what do you think you’ll take back and use in your career going forward?**

**MP:** “(Now) I have a different mindset. I knew a bit about what innovation means plus coming from the hard sciences and then to the tech world, there’s that common mantra of move fast and break things. But in civic tech work, we’re always emphasizing the value – and this is not my term – of ‘move carefully and fix things,’ which I love.

“With the anti-bias work that I’m trying to do, I’m trying to coin this term and take it a step further: ‘Include before you move and things will work for everyone.’ I love this different mindset of taking things slow and being intentional so that things will work for everybody. . . . Another PIF described it as building people up. So, it’s really not just about technology.

“And just learning that you can have a bigger and more lasting impact not by creating but by co-creating solutions and having that diversity and that diversity of thought. That’s really important.”

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**RESOURCE:** Maria Patterson at [www.presidentialinnovationfellows.gov](http://www.presidentialinnovationfellows.gov)