



Our Ability can better match people with accessible careers using an AI-enabled chatbot built by 3Cloud

## **CHALLENGE**

Our Ability provides a website that facilitates opportunities for people with disabilities to connect with employers to find jobs. To achieve this type of service the company manually reviewed candidates and positions to find matches; the system itself could not attempt to make connections on its own. Our Ability had an existing source of data from employers, but it was largely unstructured with no metadata about the type of position or its requirements. In addition, the company wanted to keep the interface between humans and machine as accessible as possible. Accessibility accommodations on the site needed to support both physical and cognitive disabilities.

## SOLUTION

To assist job seekers without prior experience or planned career path, a questionnaire was developed by the company's team, and then responses were mapped to frequently occurring broad skills. To facilitate deeper skill matches, 3Cloud built a program using Azure Cognitive Services Text Analytics API that analyzed text from applicants' previous job descriptions and employers' current job descriptions to pick out skills from these bodies of text. To support users with cognitive disabilities, the entire interface to the profile-building process was constructed in a chatbot which is embedded into the website as an assistant built using the Microsoft Bot Framework.

## **IMPACT**

Our Ability was able to expand and automate their services and use Al to make targeted recommendations for clients. From the summation of skills identified in each job and a candidate's identified skills, a ranked list of positions could be computed and returned from the AI system. This result could be filtered down to positions that are available within a certain radius on geocoded data obtained from Azure Maps. The chatbot interface, single focus in nature, can be stopped/resumed any time, and never encumbers the candidate with more than a handful of questions in a row. In addition, the solution provided a webchat interface that includes excellent text-to-speech and speech-to-text services for users who could benefit from this but may not have screen reader software.



- Industry: Non-Profit building the business case for employing people with disabilities
- **Employees: 5**
- Innovation Focus: Data & Analytics, Machine Learning and Al