



Menlo Park, California, USA-based company is pioneering new methods in single-cell analysis by combining innovations in microfluidics, optics, and AI.

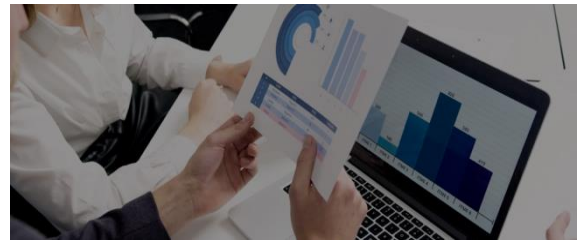
Empowering scientists through the intelligence of data, community, and technology

### Engagement Overview

Crownstack engaged with DeepCell since 2022 as an Engineering partner. The scope includes working as a front-end developer specialising in ReactJs to support three different projects (Monocle, Ada AI Platform & OID SW) for Deepcell.

### About the Customer

Deepcell offers software for single-cell dimensional morphology analysis. They strive to fuel profound biological discoveries at unprecedented rates. Deepcell continues pushing the boundaries of cell science by blending AI-powered technology, microfluidics and high-resolution optics across biological domains and fostering pioneering insights through multiple perspectives, fueling perpetual discoveries and changing the community.



Industry	Biotechnology Research
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### Business Challenges

- Deepcell is developing an in-house microscope instrument that can be used to detect cancer cells from blood samples with the help of trained AI models.
- The biggest challenge is integrating the hardware with the in-house build software to achieve the desired output using imaging and sorting processes.

### Business Solution

Our Engineering team working with the Deepcell team to conceptualise the solution and implement various integrations with their existing systems.

- Deepcell uses AI that takes samples collected from the instrument to train their models and detect cancer cells in the blood sample. For this, Deepcell has manufactured an instrument (hardware product) and software to control the same

from the computer. The detections are being processed, and end users can see the results on their dashboards.

- The team worked on developing an app that goes on the on-screen display (OID) to show all the progress that's happening on an instrument during a run. On the other hand, they are also working on an application that will be used on the connected computer to provide inputs to the instrument (microscope) to process a run (Imaging / Sorting).

### Technology Stack

Frontend	ReactJs, TypeScript
Workflow	Slack, Github, Figma, JIRA

### Business Outcome

- The team is successfully able to integrate the hardware with the in-house build software to achieve the desired output using imaging and sorting processes.
- The crownstack team enhanced the usability of all three projects (Monocle, Ada AI Platform & OID SW) in collaboration with the Deepcell team.

### Further Links

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