

Problem Statement Worksheet

By April 30, 2023, what can be developed that informs 3DHeals who is joining their webinars, how they can increase the number of participants, and how they can increase engagement during the webinars?

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1 Context

3DHeals “aims to bridge the knowledge and experience gap between 3D printing, an emerging technology, and the established healthcare and life science innovation ecosystem.” 3DHeals wants to know who is joining their free webinars in order to tailor the webinars to encourage more participants, as well as more engagement during the events.

2 Criteria for success

By April 30 2023, 3DHeals will have a condensed list of job titles, thorough exploratory data analytics (EDA), and a model that predicts how long a participant will stay in a webinar.

Deliverables: A GitHub repo containing each step of the project, a slide deck, and a project report.

3 Scope of solution space

We will find the best model (XGBoost, Decision Tree, Lasso, etc.) to predict how long a participant stays in a webinar through training and testing and cross-validating, including feature selection and principal component analysis.

4 Constraints within solution space

- The data is a couple years old and the demographics of the participants may have changed
- The sample size may be limited to only four webinars

5 Stakeholders to provide key insight

- Jenny Chen, CEO and Founder of 3DHeals

6 Key data sources

Dataset created by Zoom from four online events that 3DHeals hosted in 2019

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