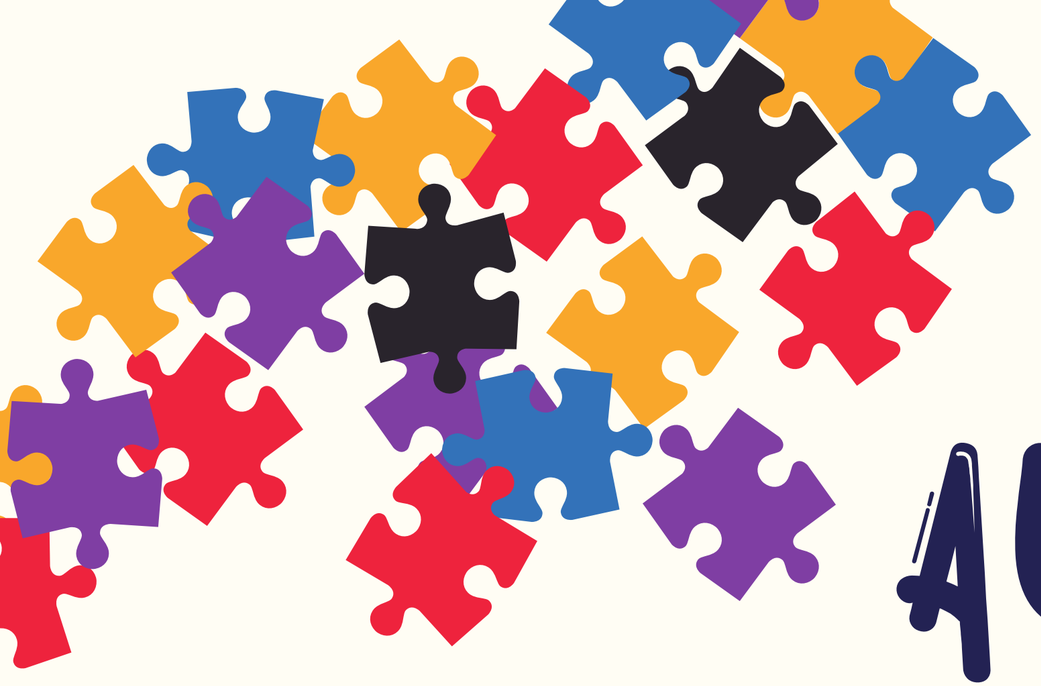


AUTISM PREDICTOR

Building Models One Puzzle Piece At A Time

Austin Aranda | Data Science

AGENDA

- Executive Summary
- Acquire & Prep
- Exploration
- Modeling
- Conclusion

EXECUTIVE SUMMARY

Key Findings

- Sex , Age, and Questions were most impactful features.
- Questions 3, 8 and 10 were not as significant.

Performance

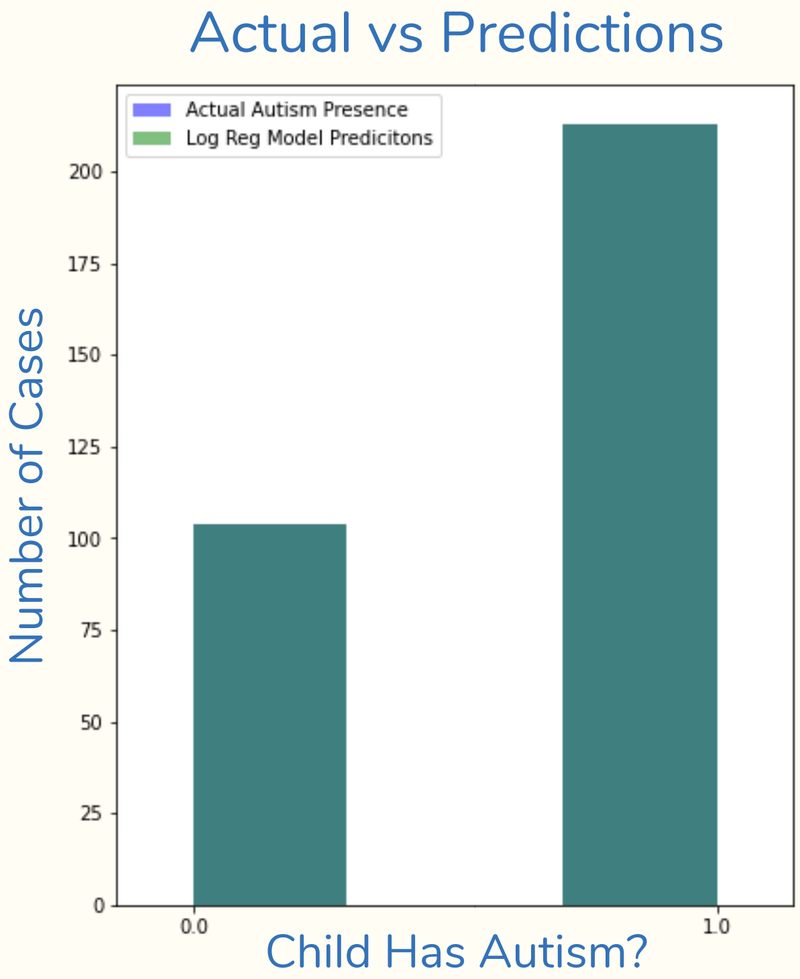
- All models beat the baseline significantly.
- Logistic Regression achieved 100% accuracy.
- Random Forest close second at 98% accuracy.

Takeaways

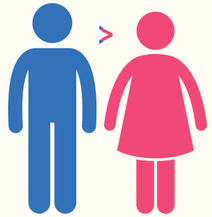
- Model is a great for Autism pre-diagnosis
- Significantly reduces manual assessment process time

Next Steps

- Healthcare providers could apply model to online intake forms.
- Children will be recommended for diagnosis sooner.



EXPLORATION

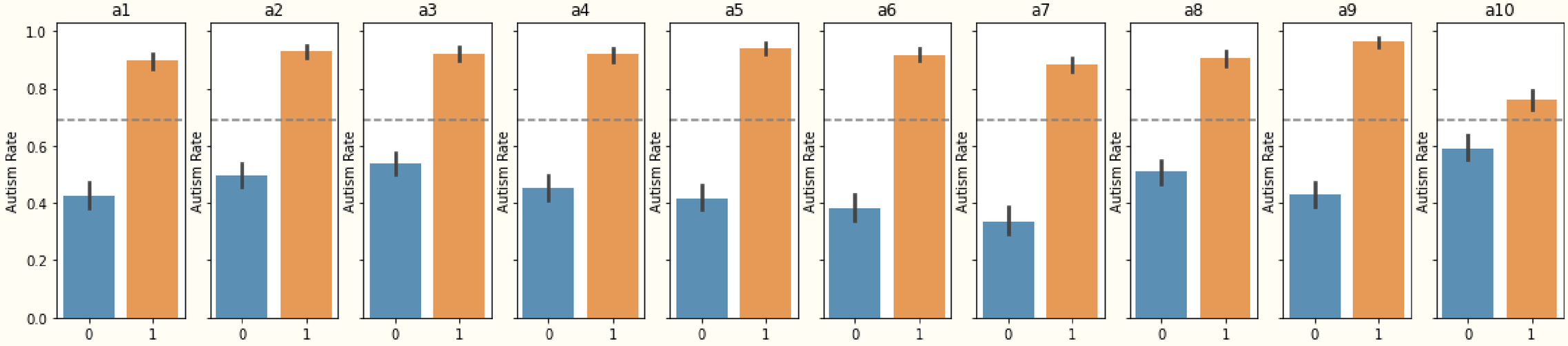


Males had a slightly higher Autism presence

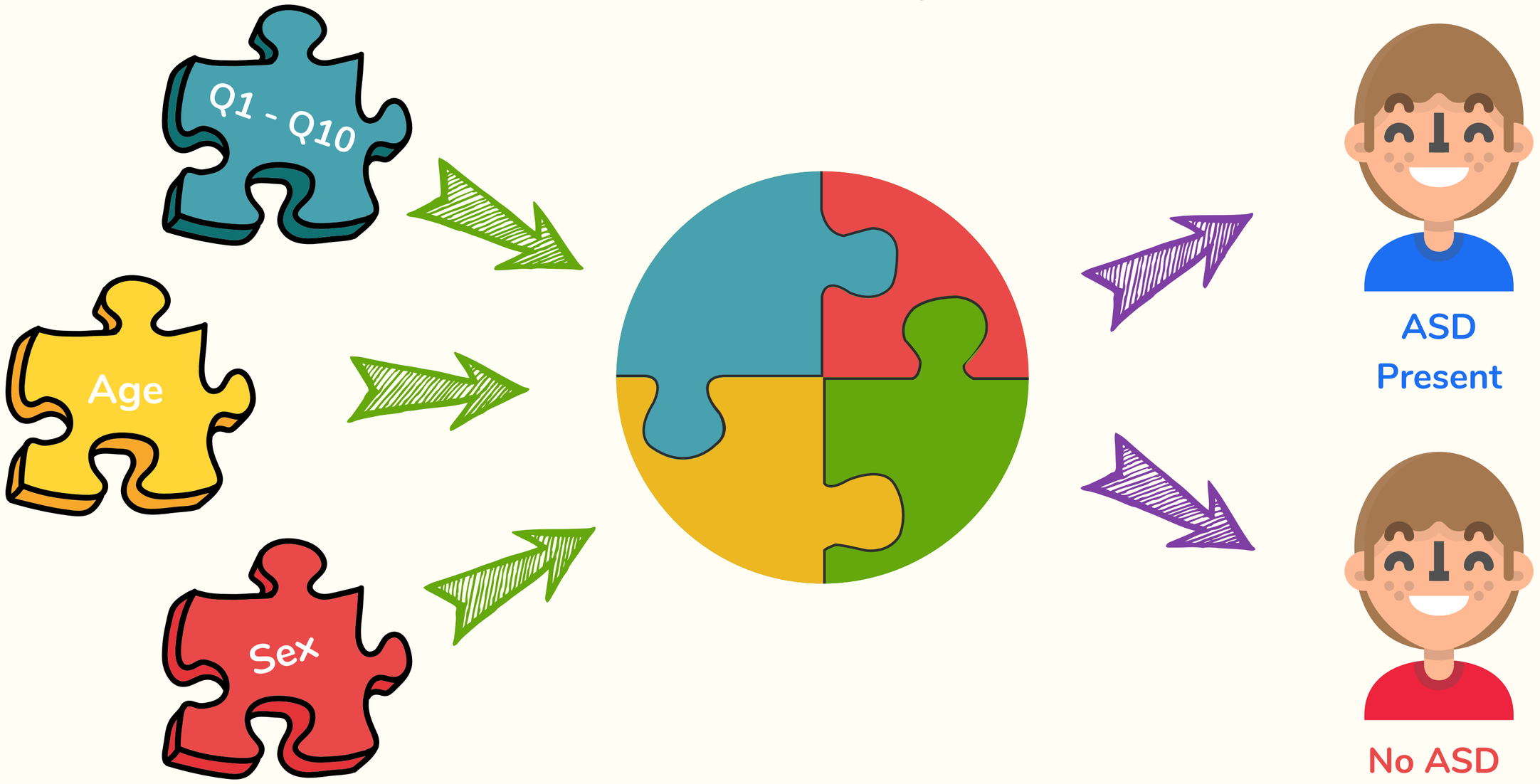
Race was not a significant factor for signs of Autism

Family history was not a reliable indicator

QUESTION RESPONSES BY AUTISM RATE



MODELING



CONCLUSION

MVP

- Logistic Regression achieved 100% accuracy on unseen data.
- Key features were vital for accurate predictions.

Takeaways

- Race is not a significant factor to determine ASD in a child.
- Family history is not accurately shared amongst relatives.

Next Steps

- This model can be used to proactively pre-diagnose children with ASD.
- Health providers will be able to provide immediate results of pre-screening questionnaire.
- Children will be able to get the treatment they need sooner.