

Effect of Household Income on a Student's Educational Attainment

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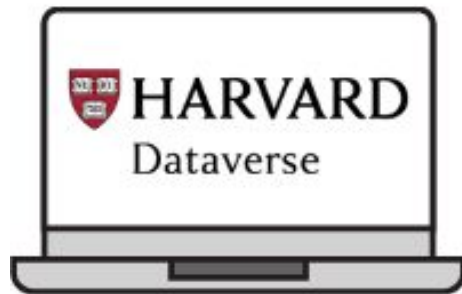
Importance

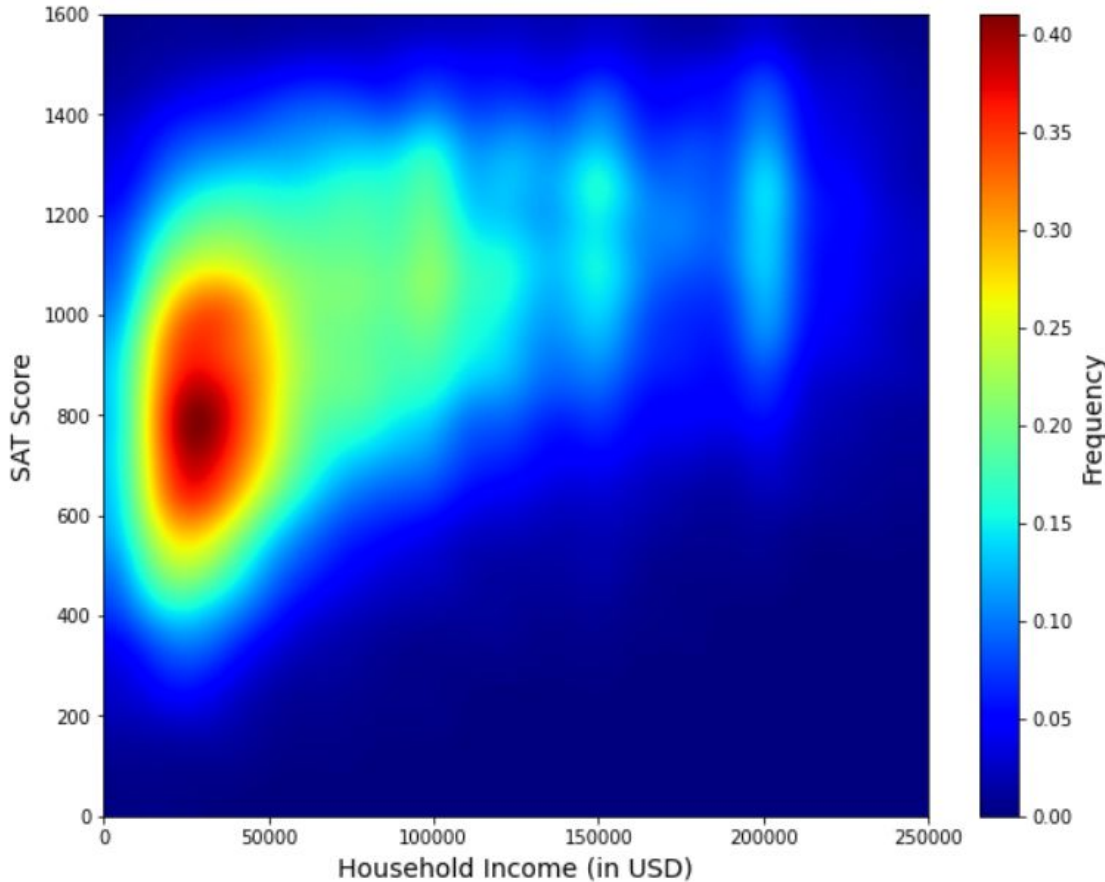
- Education of youth is key to our future
- Every child deserves an equal opportunity to learn and grow



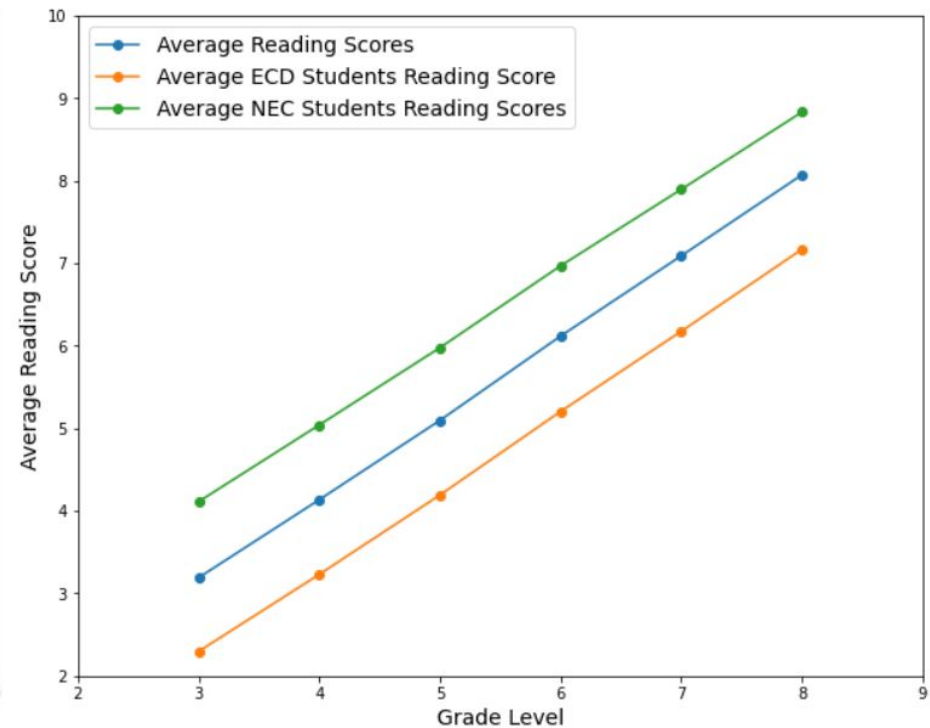
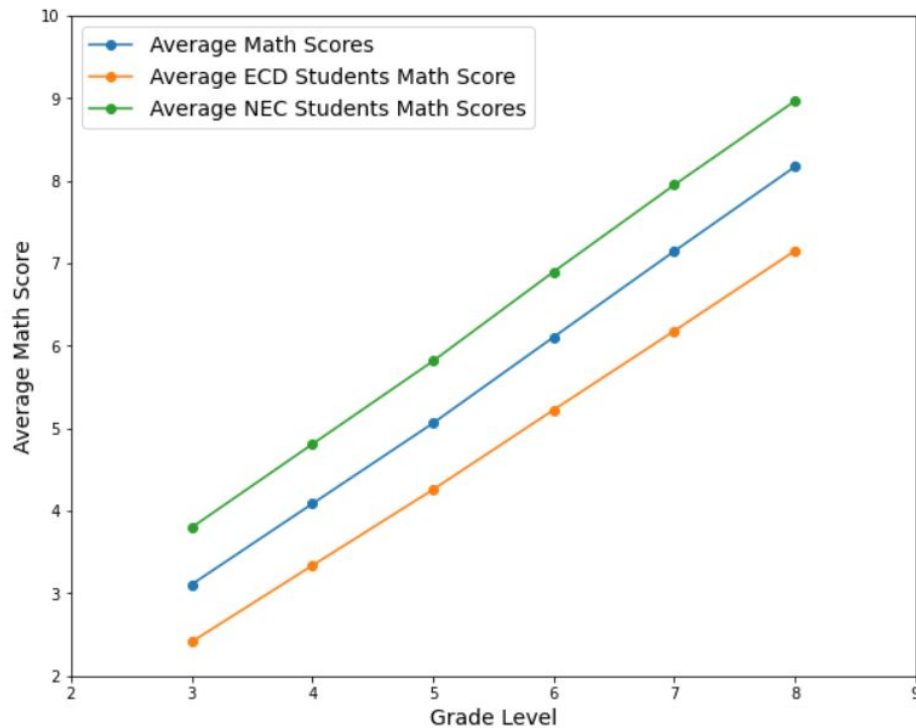
What data did we use?

- Harvard Dataverse Dataset
 - SAT test scores for ~22.7K students
- Stanford Education Data Archive (SEDA) Dataset
 - Average NAEP scores for students in ~1.3 million schools (re-scaled to grade-level means)





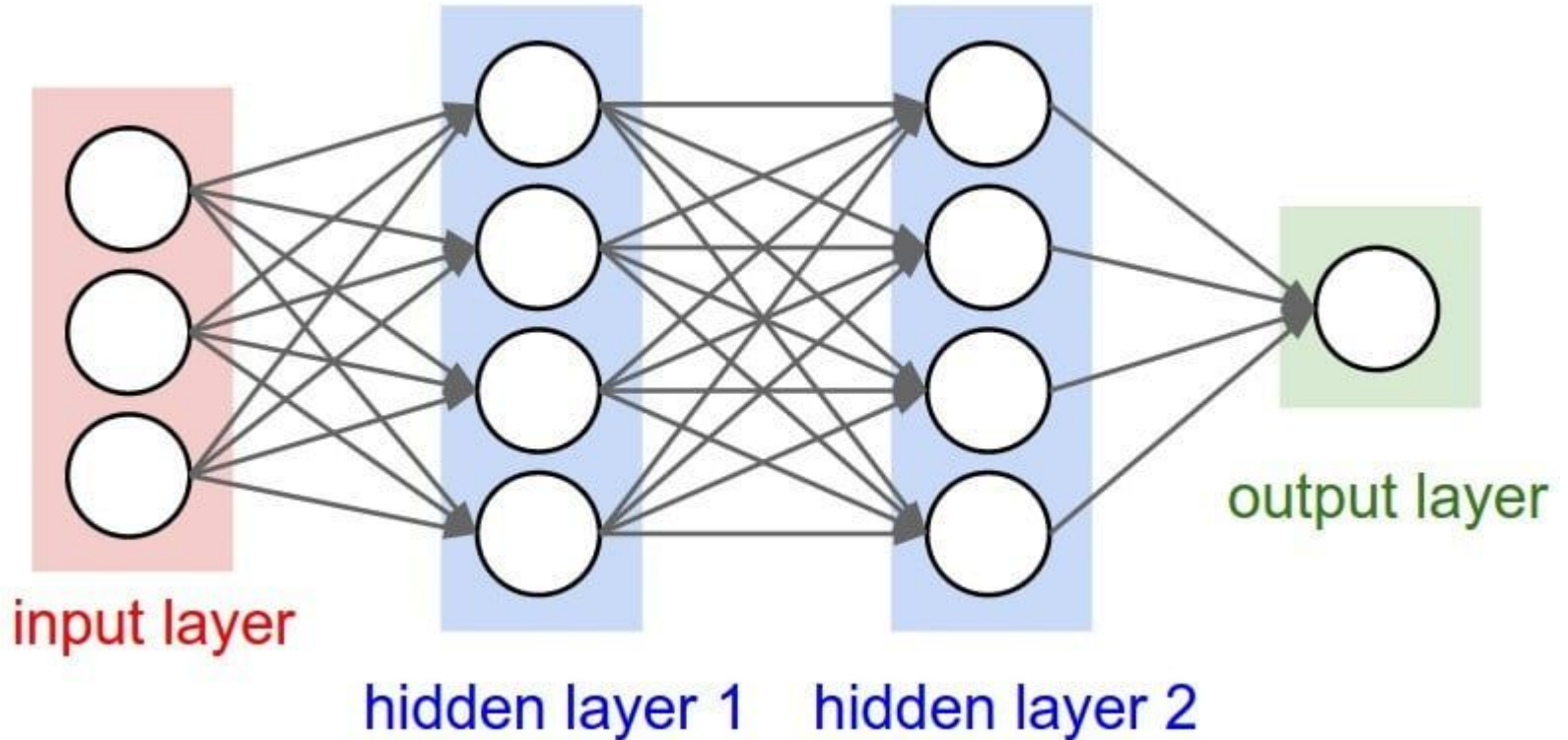
- Mean SAT Score for <\$50,000 Household Income: 1140
- Mean SAT Score for \$200,000 - \$250,000 Household Income: 1316



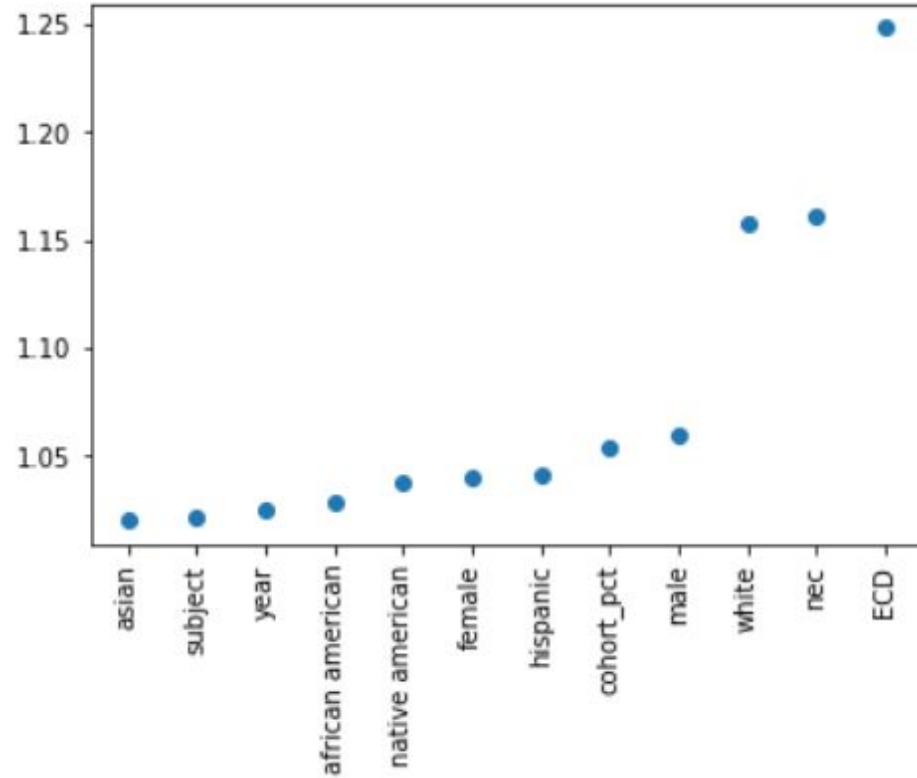
Average Gap between ECD and NEC Students in Mathematics: 1.6

Average Gap between ECD and NEC Students in Reading: 1.8

What is a Deep Neural Network?



Feature Importance Analysis



Summary of our Findings

- Significant gap between economically disadvantaged students and their non-economically disadvantaged peers in education.
- Household Income is one of the most important factors in determining a student's educational attainment.



References

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