

CS at UVA: Curriculum's Platform for Future Success  
(Technical Report)

Teachers Fight Back against Unfavorable Conditions  
(STS Research Paper)

An Undergraduate Thesis Portfolio  
Presented to the Faculty of the  
School of Engineering and Applied Science  
In Partial Fulfillment of the Requirements for the Degree  
Bachelor of Science in Computer Science

by

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## **Preface**

How can the U.S. education system be improved? The U.S. was tied for 13th for education in the PISA 2018 worldwide rankings. Improvements may be pursued through curriculum changes and through structural reforms.

How may the Computer Science curriculum at the University of Virginia (UVA) better prepare students for success? Data collected from graduates of the University of Virginia reveal opportunities for improving the university's computer science curriculum. Data shows that either removing, editing, or combining courses allows students to feel better prepared for their future employment and success.

Teachers' unions, school districts, non-union teachers, parents, advocacies, and others are competing to influence responses to teacher shortages in the United States. The competing social groups disagree about problems such as salary, responses to political pressures, parents' authority over their children's schools, and low interest among students.