

# Neil Rathi

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## Education

2022– BS in Math (Linguistics Minor), Stanford  
2018–2022 Palo Alto High School

## Experience

2022– *Research Assistant*, Stanford ALPS Lab  
with Judith Degen  
2020–2022 *Researcher*, UC Irvine LangProc Group  
with Richard Futrell and Michael Hahn

## Awards

2022 CogSci Sayan Gul Undergraduate Award  
2022 8th Place Winner, Regeneron Science Talent Search  
2021 EMNLP Student Travel Grant  
2021 NSLI-Y Arabic Scholarship

## Publications

### CONFERENCE PAPERS

2022 Neil Rathi, Michael Hahn, and Richard Futrell. 2022. Explaining patterns of fusion in morphological paradigms using the memory–surprisal tradeoff. In *CogSci 2022*.  
**Best undergraduate paper.**  
2021 Neil Rathi, Michael Hahn, and Richard Futrell. 2021. An information-theoretic characterization of morphological fusion. In *EMNLP*.  
2021 Neil Rathi. 2021. Dependency locality and neural surprisal as predictors of processing difficulty: Evidence from reading times. In *CMCL*.

### TALKS

2022 Neil Rathi. 2022. Towards an information-theoretic model of inflectional morphology. At UC Irvine Language Processing Group (Invited).  
2021 Neil Rathi, Michael Hahn, and Richard Futrell. 2021. Information-theoretic characterization of morphological fusion. At *SIGTYP 2021*.  
**Best paper.**  
2021 Neil Rathi. 2021. A neural network analysis of integration cost and surprisal. At *LSA 2021*.

## Software

Python, Java, C++. R, WebPPL, Julia. JavaScript, React. PyTorch, Tensorflow.