



# NATURAL LANGUAGE PROCESSING

MASTER'S DEGREE PROGRAM, UC SANTA CRUZ

The UC Santa Cruz professional master's program in Natural Language Processing provides students with in-depth knowledge of NLP technologies and applications through a combination of classroom instruction and relevant practical projects. Intensive training helps prepare students for successful careers in industry, government, or academia. Companies such as Apple, IBM, Google, and Amazon offer exciting careers for individuals with NLP knowledge and skills. The M.S. program at UC Santa Cruz will help prepare participants for such a career.



*"NLP skills are highly desired in industry, and I'm pleased to be on the industry advisory board for this program."*

**Yunyao Li, Senior Research Manager with IBM Almaden Research Center**

## FACTS

- Industry advisors, collaborators, and speakers
- Instructors and mentors with both academic and industry experience
- Systematic education in natural language processing, data science, linguistic theory and machine learning
- State of the art facilities in the center of Silicon Valley
- 1 year program, including a three-quarter capstone project
- UC Santa Cruz NLP students have been placed in top Silicon Valley companies like Google, Facebook, LinkedIn, Amazon, IBM, and others
- STEM degree in Computer Science in Engineering: OPT for international students
- **Application deadline: February 3, 2020**

**FOR MORE INFORMATION AND TO APPLY:**  
[grad.soe.ucsc.edu/nlp](http://grad.soe.ucsc.edu/nlp)



## COURSE SAMPLING

**Three core courses covering morphology, the lexicon, parsing, semantic parsing, discourse and dialogue and applications**

**Tools of the NLP Trade: Data Collection, Wrangling & Crowdsourcing**

**Machine Learning for Natural Language Processing**

**Linguistic Models of Syntax & Semantics for Computer Scientists**

**Conversational Agents**

**Information Extraction**

**Machine Translation**

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## INDUSTRY ADVISORY BOARD

The Industry Advisory Board consists of scientists and practitioners working in NLP in industry with an applied NLP focus, experience managing NLP advanced development and research, and a broad view of the field. The board provides input on the academic aspects of the program and helps ensure that the program curriculum provides the training that industry wants and needs in the NLP area.

Current board members include:

**Hadar Shemtov: Google**

**Amanda Stent: Bloomberg**


**Yunyao Li: IBM**

**François Mairesse: Amazon**

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## BASKIN SCHOOL OF ENGINEERING

University of California, Santa Cruz  
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[soe.ucsc.edu](http://soe.ucsc.edu)

## HIGHLIGHTED NLP FACULTY

**Marilyn Walker:** Computational models of dialogue, natural language generation, conversational agents, models of expressive and stylistic variation in language. Fellow of the Association for Computational Linguistics (ACL).

**Pranav Anand:** Semantics, discourse, pragmatics, syntax and computational linguistics.

**Luca de Alfaro:** Crowdsourcing, reputation systems, game theory and incentives, formal methods. Featured in The New York Times, Wired, The Register, and more. Co-founder and Chief Scientist of Camio. Founder of CrowdGrader, a UCSC-derived company.

**Jeffrey Flanigan:** Semantic parsing, language generation from semantic structures, deep learning and machine learning, representations of meaning, machine translation, summarization

**Jean E Fox Tree:** Models of spontaneous language, discourse markers, multimodal language production and interpretation, human computer interaction, language processing, speech. Featured in The New York Times, ABC News, Science Today, and more.

**Lise Getoor:** Entity resolution, information extraction, machine learning, reasoning and planning under uncertainty, data science for social good, artificial intelligence. Fellow of the Association for the Advancement of Artificial Intelligence (AAAI). Former board member of Computing Research Association and International Machine Learning Society. Director of the UC Santa Cruz D3 Data Science Research Center.

**Narges Norouzi:** Machine Learning, AI, Deep Learning

**Yi Zhang:** Conversational search and recommendation, information retrieval, text mining, machine learning and AI. Co-founder and CTO of Rulai, a Conversational AI Platform and named on Forbes 2019 AI 50 list. Advisor for startups and consultant for companies such as HP, Alibaba, and Toyota. Featured on Forbes, Techcrunch etc..