**FOCUS ON CAREERS**

**COMPUTATIONAL LINGUISTICS**

Brandeis University Graduate School of Arts and Sciences

**COMPUTATIONAL LINGUISTICS** is the scientific study of language from a computational perspective. It is an interdisciplinary field which draws on linguistic theory (phonology, pragmatics, semantics, syntax) and computer science (artificial intelligence, programming methods, theory of computation). Computational linguistics techniques are employed whenever a person uses Facebook, Google, Twitter, Yahoo, and many other websites and applications. Graduates may find careers that intersect the relationship between computers and language such as: automatic summarization, information extraction, machine translation, speech technology, text mining, etc. This field creates opportunities that benefit society through work in (but not limited to) automated text analysis, information retrieval, web search, and computer security. Companies hire computational linguists for work in various aspects of speech technology like corpus development, language modeling, scripting and programming, phonetic transcription, grammar checking, and development of lexical resources.

**Select areas of employment**

<table>
<thead>
<tr>
<th>artificial intelligence systems</th>
<th>information technology</th>
<th>software development</th>
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<tbody>
<tr>
<td>education</td>
<td>federal government</td>
<td>technology manufacturers</td>
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<tr>
<td>computational linguistic centers</td>
<td>neuroscience research centers</td>
<td>telecommunications companies</td>
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<tr>
<td>entertainment</td>
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<td>translation agencies</td>
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**Representative job titles**

<table>
<thead>
<tr>
<th>computational linguist</th>
<th>technical writer</th>
<th>machine learning engineer</th>
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<tbody>
<tr>
<td>NLP scientist/engineer</td>
<td>consultant</td>
<td>knowledge management</td>
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<tr>
<td>data scientist</td>
<td>scientific linguist</td>
<td>developer</td>
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<tr>
<td>data mining developer</td>
<td>cognition and decision</td>
<td>AI and reasoning engineer</td>
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<tr>
<td>software engineer</td>
<td>scientist</td>
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**Potential Employers**

- Converse - speech technology for computers and internet: www.comverse.com
- Language Intelligence - a linguistic software company: www.languageintelligence.com
- Lionbridge - web-based localization of software for non-English languages: www.lionbridge.com
- Transparent Language - software for second language learners: www.transparent.com
- Translation Service Company: www.wintranslation.com
- Nuance – speech to text software developers: www.nuance.com

**Where are our alumni employed?**

- **MIT Media Lab**: Research Scientist
- **SAP Labs**: Computational Linguist
- **MITRE**: Senior Artificial Intelligence Engineer
- **FactSet Research System**: NLP Software Engineer
- **AT&T Labs**: Researcher
- **ShutterStock**: Data Science Engineer

**Additional Resources**

- Association for Computational Linguistics: www.aclweb.org/
- Association for Computing Machinery: www.acm.org/
- MultiLingual Computing, Inc.: www.multilingual.com
- Linguist List: linguistlist.org/jobs