CAREER PROFILE: NEXT LEVEL TECH

Natural Language Processing (NLP) Engineer

A Natural Language Processing (NLP) engineer develops AI systems that understand, interpret, and respond to human language. They create technology behind chatbots, translation apps, voice assistants, search engines, and speech-to-text tools. Working across industries, NLP engineers help computers communicate more naturally and effectively with people.

School to Career Pathway

- Study computer science, math, statistics, and language arts.
- Learn programming languages such as Python.
- Earn a bachelor's degree in computer science, AI, data science, software engineering, or a related field.
- Some employers prefer a master's degree because NLP combines programming, machine learning, linguistics, and math.

Durable Skills

As a NLP engineer, you need:

- Critical thinking to assess strengths and weaknesses of solutions and solve problems.
- Active listening to understand others and ask questions.
- Lifelong learning to apply new knowledge and technologies to decisions.
- Written and verbal communication to explain ideas clearly.
- Sound judgment to weigh costs, benefits, and trade-offs before deciding.

Paycheck Peek

$60.00 hourly, $125,000 annual
*Note that annual wages vary by location (state, city, or work setting)



Core Duties

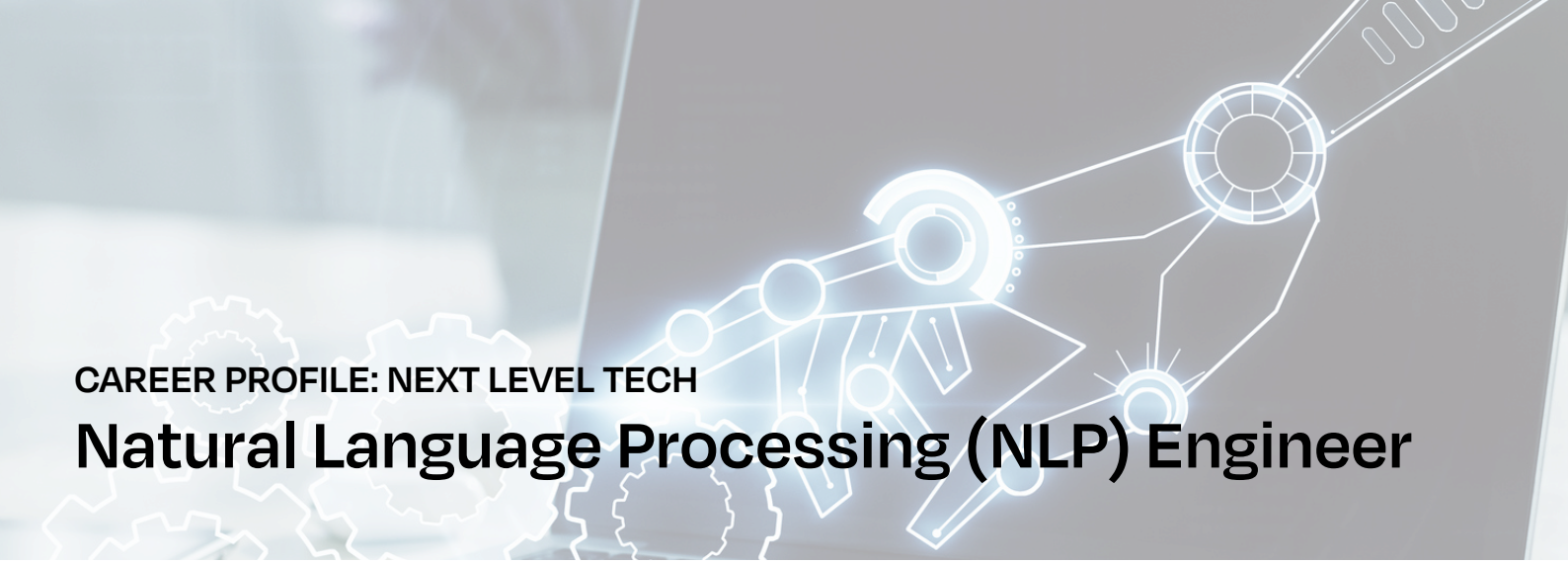
Build AI Language Models
Design and improve programs that understand, generate, and respond to written or spoken language, including questions, commands, and conversations.

Prepare and Analyze Data
Collect, organize, label, and clean large sets of text and speech data to help AI systems learn language patterns and improve their responses.

Train and Test AI Systems
Train models to recognize language patterns, then test how accurately they interpret requests, answer questions, and complete tasks.

Improve AI Performance
Find and correct errors, identify and reduce bias, and improve the accuracy, speed, reliability, and usability of language-based AI tools.

Work with Technology Teams
Collaborate with software engineers, data scientists, and product designers to develop AI-powered applications that address real-world needs.



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Could This Be Your Thing?

- Have you tried coding with Scratch or Python and enjoyed creating programs that solve problems?
- Are you curious about artificial intelligence and how computers learn to understand and respond to human language?
- Do you enjoy math, language arts, or discovering patterns in words and conversations?
- Do you like building creative tools that help people communicate, find information, or complete everyday tasks?
- Do you enjoy experimenting with new ideas and improving how technology works?

Explore Similar Career Pathways

- Data Scientist
- Computer Systems Engineers/Architects
- Software Developers
- Computer Vision Software Engineer

Dig Deeper Here

Find out more about all careers at: US Bureau of Labor Statistics Student's Desk

Find out more about AI Careers at:

- A-Z of Careers in AI
- Careers in AI Video Series for Middle School Students
- AI at NASA: Unlocking the Future of Exploration

Find out more about the careers above:

- O*Net Online: Data Scientist
- LabXchange: Data Scientist
- O*NET Online: Computer Systems Engineers/Architects
- O*NET Online: Software Developers
- STEM Careers Coalition: Computer Vision Software Engineer