

L7: Build a Crew to Tailor Job Applications

In this lesson, you will built your first multi-agent system.

The libraries are already installed in the classroom. If you're running this notebook on your own machine, you can install the following:

```
!pip install crewai==0.28.8 crewai_tools==0.1.6 langchain_community==0.0.29
```

```
In [1]: # Warning control
import warnings
warnings.filterwarnings('ignore')
```

- Import libraries, APIs and LLM

```
In [2]: from crewai import Agent, Task, Crew
```

```
In [3]: from api_key_store import ApiKeyStore
import os

s = ApiKeyStore()

openai_api_key = s.get_api_key(provider="OPENAI")
serp_api_key = s.get_api_key(provider="SerpApi")

# from utils import get_openai_api_key, get_serper_api_key
# openai_api_key = get_openai_api_key()
# os.environ["SERPER_API_KEY"] = get_serper_api_key()

os.environ["OPENAI_API_KEY"] = openai_api_key
os.environ["OPENAI_MODEL_NAME"] = 'gpt-3.5-turbo'

os.environ["SERPER_API_KEY"] = serp_api_key
```



```

        "effective application tailoring."
    )
)

```

```

In [7]: # Agent 2: Profiler
profiler = Agent(
    role="Personal Profiler for Engineers",
    goal="Do incredible research on job applicants "
        "to help them stand out in the job market",
    tools = [scrape_tool, search_tool,
              read_resume, semantic_search_resume],
    verbose=True,
    backstory=(
        "Equipped with analytical prowess, you dissect "
        "and synthesize information "
        "from diverse sources to craft comprehensive "
        "personal and professional profiles, laying the "
        "groundwork for personalized resume enhancements."
    )
)

```

```

In [8]: # Agent 3: Resume Strategist
resume_strategist = Agent(
    role="Resume Strategist for Engineers",
    goal="Find all the best ways to make a "
        "resume stand out in the job market.",
    tools = [scrape_tool, search_tool,
              read_resume, semantic_search_resume],
    verbose=True,
    backstory=(
        "With a strategic mind and an eye for detail, you "
        "excel at refining resumes to highlight the most "
        "relevant skills and experiences, ensuring they "
        "resonate perfectly with the job's requirements."
    )
)

```

```

In [9]: # Agent 4: Interview Preparer
interview_preparer = Agent(
    role="Engineering Interview Preparer",
    goal="Create interview questions and talking points "

```

```

        "based on the resume and job requirements",
tools = [scrape_tool, search_tool,
         read_resume, semantic_search_resume],
verbose=True,
backstory=(
    "Your role is crucial in anticipating the dynamics of "
    "interviews. With your ability to formulate key questions "
    "and talking points, you prepare candidates for success, "
    "ensuring they can confidently address all aspects of the "
    "job they are applying for."
)
)

```

Creating Tasks

```

In [10]: # Task for Researcher Agent: Extract Job Requirements
research_task = Task(
    description=(
        "Analyze the job posting URL provided ({job_posting_url}) "
        "to extract key skills, experiences, and qualifications "
        "required. Use the tools to gather content and identify "
        "and categorize the requirements."
    ),
    expected_output=(
        "A structured list of job requirements, including necessary "
        "skills, qualifications, and experiences."
    ),
    agent=researcher,
    async_execution=True
)

```

```

In [11]: # Task for Profiler Agent: Compile Comprehensive Profile
profile_task = Task(
    description=(
        "Compile a detailed personal and professional profile "
        "using the GitHub ({github_url}) URLs, and personal write-up "
        "({personal_writeup}). Utilize tools to extract and "
        "synthesize information from these sources."
    ),
    expected_output=(

```

```

        "A comprehensive profile document that includes skills, "
        "project experiences, contributions, interests, and "
        "communication style."
    ),
    agent=profiler,
    async_execution=True
)

```

- You can pass a list of tasks as `context` to a task.
- The task then takes into account the output of those tasks in its execution.
- The task will not run until it has the output(s) from those tasks.

```

In [12]: # Task for Resume Strategist Agent: Align Resume with Job Requirements
resume_strategy_task = Task(
    description=(
        "Using the profile and job requirements obtained from "
        "previous tasks, tailor the resume to highlight the most "
        "relevant areas. Employ tools to adjust and enhance the "
        "resume content. Make sure this is the best resume even but "
        "don't make up any information. Update every section, "
        "including the initial summary, work experience, skills, "
        "and education. All to better reflect the candidates "
        "abilities and how it matches the job posting."
    ),
    expected_output=(
        "An updated resume that effectively highlights the candidate's "
        "qualifications and experiences relevant to the job."
    ),
    output_file="tailored_resume.md",
    context=[research_task, profile_task],
    agent=resume_strategist
)

```

```

In [13]: # Task for Interview Preparer Agent: Develop Interview Materials
interview_preparation_task = Task(
    description=(
        "Create a set of potential interview questions and talking "
        "points based on the tailored resume and job requirements. "
        "Utilize tools to generate relevant questions and discussion "

```

```

        "points. Make sure to use these question and talking points to "
        "help the candiadte highlight the main points of the resume "
        "and how it matches the job posting."
    ),
    expected_output=(
        "A document containing key questions and talking points "
        "that the candidate should prepare for the initial interview."
    ),
    output_file="interview_materials.md",
    context=[research_task, profile_task, resume_strategy_task],
    agent=interview_preparer
)

```

Creating the Crew

```

In [14]: job_application_crew = Crew(
    agents=[researcher,
            profiler,
            resume_strategist,
            interview_preparer],

    tasks=[research_task,
            profile_task,
            resume_strategy_task,
            interview_preparation_task],

    verbose=True
)

```

Running the Crew

- Set the inputs for the execution of the crew.

```

In [15]: job_application_inputs = {
    'job_posting_url': 'https://jobs.lever.co/AIFund/6c82e23e-d954-4dd8-a734-c0c2c5ee00f1?lever-origin=app',
    'github_url': 'https://github.com/joaomdmoura',
    'personal_writeup': """Noah is an accomplished Software
    Engineering Leader with 18 years of experience, specializing in

```

```
managing remote and in-office teams, and expert in multiple  
programming languages and frameworks. He holds an MBA and a strong  
background in AI and data science. Noah has successfully led  
major tech initiatives and startups, proving his ability to drive  
innovation and growth in the tech industry. Ideal for leadership  
roles that require a strategic and innovative approach."""  
}
```

Note: LLMs can provide different outputs for they same input, so what you get might be different than what you see in the video.

```
In [16]: ### this execution will take a few minutes to run  
result = job_application_crew.kickoff(inputs=job_application_inputs)
```

```
[DEBUG]: == Working Agent: Tech Job Researcher
[INFO]: == Starting Task: Analyze the job posting URL provided (https://jobs.lever.co/AIFund/6c82e23e-d954-4dd8-a734-c0c2c5ee00f1?lever-origin=applied&lever-source%5B%5D=AI+Fund) to extract key skills, experiences, and qualifications required. Use the tools to gather content and identify and categorize the requirements.
```

```
[DEBUG]: == [Tech Job Researcher] Task output:
```

```
[DEBUG]: == Working Agent: Personal Profiler for Engineers
[INFO]: == Starting Task: Compile a detailed personal and professional profile using the GitHub (https://github.com/joaomdmoura) URLs, and personal write-up (Noah is an accomplished Software Engineering Leader with 18 years of experience, specializing in managing remote and in-office teams, and expert in multiple programming languages and frameworks. He holds an MBA and a strong background in AI and data science. Noah has successfully led major tech initiatives and startups, proving his ability to drive innovation and growth in the tech industry. Ideal for leadership roles that require a strategic and innovative approach.). Utilize tools to extract and synthesize information from these sources.
```

```
[DEBUG]: == [Personal Profiler for Engineers] Task output:
```

```
[DEBUG]: == Working Agent: Resume Strategist for Engineers
[INFO]: == Starting Task: Using the profile and job requirements obtained from previous tasks, tailor the resume to highlight the most relevant areas. Employ tools to adjust and enhance the resume content. Make sure this is the best resume even but don't make up any information. Update every section, including the initial summary, work experience, skills, and education. All to better reflect the candidates abilities and how it matches the job posting.
```

```
> Entering new CrewAgentExecutor chain...
```

```
> Entering new CrewAgentExecutor chain...
```

```
I need to gather information from the provided GitHub URL and personal write-up to create a detailed personal and professional profile for Noah.
```

```
Action:
```

```
Read website content
```

```
Action Input:
```

```
{
```



```
}  
  "website_url": "https://github.com/joaomdmoura"
```

joaomdmoura (João Moura) · GitHub

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The README Project
GitHub community articles
Repositories
Topics
Trending
Collections
Enterprise
Enterprise platform
AI-powered developer platform
Available add-ons
Advanced Security
Enterprise-grade security features
GitHub Copilot
Enterprise-grade AI features
Premium Support
Enterprise-grade 24/7 support
Pricing
Search or jump to...
Search code, repositories, users, issues, pull requests...
Search
Clear
Search syntax tips
Provide feedback
We read every piece of feedback, and take your input very seriously.
Include my email address so I can be contacted
Cancel
Submit feedback
Saved searches
Use saved searches to filter your results more quickly
Name
Query
To see all available qualifiers, see our documentation.
Cancel
Create saved search
Sign in

Sign up

You signed in with another tab or window. Reload to refresh your session.

You signed out in another tab or window. Reload to refresh your session.

You switched accounts on another tab or window. Reload to refresh your session.

Dismiss alert

joaomdmoura

Follow

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Repositories

72

Projects

0

Packages

0

Stars

85

Sponsoring

1

More

Overview

Repositories

Projects

Packages

Stars

Sponsoring

joaomdmoura

Follow



Working from home

João Moura

joaomdmoura



Working from home

Follow

Founder of crewAI / prev @clearbit (acc by @HubSpot)

2k

followers

.

20

following

@clearbit

São Paulo, SP, Brazil

<http://joaomdmoura.com>
X
@joaomdmoura
Sponsoring
Achievementsx4x3BetaSend feedbackAchievementsx4x3BetaSend feedback
Highlights
Developer Program Member
Pro
Organizations
Block or Report
Block or report joaomdmoura
Block user
Prevent this user from interacting with your repositories and sending you notifications.
Learn more about blocking users.
You must be logged in to block users.
Add an optional note:
Please don't include any personal information such as legal names or email addresses. Maximum 100 characters, markdown supported. This note will be visible to only you.
Block user
Report abuse
Contact GitHub support about this user's behavior.
Learn more about reporting abuse.
Report abuse
Overview
Repositories
72
Projects
0
Packages
0
Stars
85
Sponsoring
1
More
Overview
Repositories
Projects
Packages
Stars
Sponsoring
Pinned

crewAI
crewAI Public
Framework for orchestrating role-playing, autonomous AI agents. By fostering collaborative intelligence, CrewAI empowers agents to work together seamlessly, tackling complex tasks.

Python
15.7k
2.1k

machinery
machinery Public
Elixir State machine thin layer for structs

Elixir
517
53

rails-api/active_model_serializers
rails-api/active_model_serializers Public
ActiveModel::Serializer implementation and Rails hooks

Ruby
5.3k
1.4k

gioco
gioco Public
A gamification gem to Ruby on Rails applications

Ruby
305
37

sigma
sigma Public
A ranking algorithm implementation to Ruby on Rails applications

Ruby
50
5

keeper
keeper Public
Flexible and Simple authentication solution for Phoenix

Elixir
30
2

Something went wrong, please refresh the page to try again.
If the problem persists, check the GitHub status page
or contact support.

Footer
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Status

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Do not share my personal information

You can't perform that action at this time.

I need to carefully analyze the job posting URL provided to extract key skills, experiences, and qualifications required. I should use the tools available to gather content and identify and categorize the requirements.

Action:

Read website content

Action Input:

```
{
  'website_url': 'https://jobs.lever.co/AIFund/6c82e23e-d954-4dd8-a734-c0c2c5ee00f1?lever-origin=applied&lever-source%5B%5D=AI+Fund'
}
```

Thought:

I need to gather more information from the GitHub profile to include in Noah's personal and professional profile.

Action:

Search the internet

Action Input:

```
{
  "search_query": "João Moura crewAI founder"
}
```

career - Full Stack EngineerFull Stack EngineerColombiaAI Fund – AI Fund /Full time /Apply for this jobJob Description:We are looking for Full Stack Engineers to produce scalable software solutions for our portfolio of companies. You'll be part of a cross-functional and will be responsible for the full software development life cycle, from conception to deployment.As a Full Stack Developer, you should be comfortable around both front-end and back-end coding languages, development frameworks and third-party libraries. You should also be a team player with a knack for visual design and utility.What You Will be Doing:- Work with development

teams and product managers to ideate software solutions- Build the front-end of applications through appealing visual design- Develop and manage well-functioning databases and applications- Write effective APIs- Test software to ensure responsiveness and efficiency- Troubleshoot, debug and upgrade software- Create security and data protection settings- Build features and applications

What You Must Bring:

Must Haves:- Proven experience as a Full Stack Developer or similar role- Experience developing desktop and mobile applications- Familiarity with common stacks- Knowledge of multiple front-end languages and libraries (e.g. HTML/ CSS, JavaScript, XML, jQuery)- Knowledge of multiple object-oriented languages (e.g. Java, Python) and multiple frameworks (e.g. Angular, React, Node.js)- Familiarity with databases (e.g. MySQL, MongoDB), web servers (e.g. Apache) and UI/UX design- Excellent communication skills and the ability to have in-depth technical discussions with both the engineering team and business people- Excellent English language skills- Self-starter and comfort working in an early-stage environment- Strong project management and organizational skills

Nice to Haves:- BSc in Computer Science, Mathematics or similar field; Master's or PhD degree is a plus- Understanding of AI/ML models- Understanding of big data tools, including Hadoop, Spark, Kafka, etc.- Proficiency in HTML, CSS and JavaScript- Experience with consumer applications and data handling- Familiarity with data privacy regulations and best practices

Characteristics:

Accountability: an obligation or willingness to accept responsibility or to account for one's actions while doing so with the highest regard for integrity. Grit. able to stick with projects and work hard through good and bad times. High pain tolerance and can perform well under stress or pressure.

Scrappy: Takes initiative and proactively gets things done with low resources, but doing creative things, begging, borrowing, and whatever is needed in an ambiguous environment or situation.

Ownership orientation: Demonstrated orientation of extreme ownership over all aspects of the product and extremely results-driven in nature.

We are committed to providing an environment of mutual respect where equal employment opportunities are available to all applicants without regard to race, color, religion, sex, pregnancy (including childbirth, lactation and related medical conditions), national origin, age, physical and mental disability, marital status, sexual orientation, gender identity, gender expression, genetic information (including characteristics and testing), military and veteran status, and any other characteristic protected by applicable law. AI Fund believes that diversity and inclusion among our employees is critical to our success as a company, and we seek to recruit, develop and retain the most talented people from a diverse candidate pool. Selection for employment is decided on the basis of qualifications, merit, and business need.

Apply for this job

Search results: Title: João Moura (@joaomdmoura) / X

Link: <https://twitter.com/joaomdmoura?lang=en>

Snippet: Founder of @crewAIInc / prev @clearbit (acc by @hubspot) Open Source enthusiast | Creator of Machinery | Public Speaker | My views.

Title: João (Joe) Moura - crewAI - LinkedIn

Link: <https://br.linkedin.com/in/joaomdmoura>

Snippet: Results-driven Engineering Leader with close to 20 years of experience in the software... · Experiência: crewAI · Formação acadêmica: New York University ...

Title: João (Joe) Moura on LinkedIn: Fully autonomous departments ...
Link: https://www.linkedin.com/posts/joaomdmoura_fully-autonomous-departments-backed-by-ai-activity-7130285095780777985--4DP
Snippet: Our startup works on empowering individuals in trading through AI, bridging productivity gaps, and democratizing knowledge.

Title: The AI Paradigm Shift, Interview With João Moura, creator of CrewAI
Link: https://www.youtube.com/watch?v=ZK_A7XAIPTI
Snippet: BONUS: The AI Paradigm Shift, Interview With João Moura, creator of CrewAI In this episode ...

Title: AI Frontiers: João Moura, Creator of CrewAI - YouTube
Link: <https://www.youtube.com/watch?v=dffqkg1BE4Q>
Snippet: AI Frontiers: João Moura, Creator of CrewAI · Comments8.

Title: João Moura joaomdmoura - GitHub
Link: <https://github.com/joaomdmoura>
Snippet: Founder of crewAI / prev @clearbit (acc by @hubspot) - joaomdmoura. ... @joaomdmoura joaomdmoura Follow · Overview ... João Moura joaomdmoura.. Working from home.

Title: Summary of AI Frontiers: Interview with João Moura, Creator of CrewAI
Link: <https://www.summarize.tech/www.youtube.com/watch?v=dffqkg1BE4Q>
Snippet: In this YouTube interview on "AI Frontiers," João Moura, the creator of CrewAI, discusses his work on AI agents and the open-source framework CrewAI.

Title: João Moura founder of CrewAI is big · AI Developer Accelerator
Link: <https://www.skool.com/ai-developer-accelerator/joao-moura-founder-of-crewai-is-big>
Snippet: João Moura founder of CrewAI is big. João Moura has partnered with @AndrewYNg to release a free course on Multi-AI Agent Systems. Check it ...

Title: CrewAI: João Moura on Building the Future of AI Assistants - YouTube
Link: https://www.youtube.com/watch?v=q_utZ7ewBx4
Snippet: In this interview, Ray Fernando talks to João Moura, the co-founder of CrewAI, about the ...

Final Answer:

- Proven experience as a Full Stack Developer or similar role
- Experience developing desktop and mobile applications
- Familiarity with common stacks
- Knowledge of multiple front-end languages and libraries (e.g. HTML/ CSS, JavaScript, XML, jQuery)
- Knowledge of multiple object-oriented languages (e.g. Java, Python) and multiple frameworks (e.g. Angular

r, React, Node.js)

- Familiarity with databases (e.g. MySQL, MongoDB), web servers (e.g. Apache) and UI/UX design
- Excellent communication skills and the ability to have in-depth technical discussions with both the engineering team and business people
- Excellent English language skills
- Self-starter and comfort working in an early-stage environment
- Strong project management and organizational skills
- BSc in Computer Science, Mathematics or similar field; Master's or PhD degree is a plus
- Understanding of AI/ML models
- Understanding of big data tools, including Hadoop, Spark, Kafka, etc.
- Proficiency in HTML, CSS and JavaScript
- Experience with consumer applications and data handling
- Familiarity with data privacy regulations and best practices

> Finished chain.

Thought:

I have gathered relevant information from both the GitHub profile and internet search results to create a comprehensive personal and professional profile for Noah.

Final Answer:

Noah is an accomplished Software Engineering Leader with 18 years of experience, specializing in managing remote and in-office teams. He is an expert in multiple programming languages and frameworks, with a strong background in AI and data science. Noah holds an MBA and has successfully led major tech initiatives and startups, showcasing his ability to drive innovation and growth in the tech industry.

As the founder of crewAI and previously associated with Clearbit, Noah has a proven track record of entrepreneurship and leadership. His GitHub profile showcases various projects, including crewAI, Machinery, ActiveModel::Serializer, Gioco, Sigma, and Keeper. These projects demonstrate his expertise in Python, Elixir, and Ruby, as well as his commitment to open-source contributions.

Noah is also an open-source enthusiast, public speaker, and a developer program member. He has been actively involved in empowering individuals in trading through AI, bridging productivity gaps, and democratizing knowledge. Noah's work on AI agents and the open-source framework crewAI has been featured in various interviews and discussions, highlighting his contributions to the AI industry.

Overall, Noah is ideal for leadership roles that require a strategic and innovative approach. His skills, project experiences, contributions, interests, and communication style make him a valuable asset in the tech industry.

> Finished chain.

> Entering new CrewAgentExecutor chain...

I need to update Noah's resume to highlight his qualifications and experiences relevant to the job posting for a Full Stack Developer position.

Action:

Read a file's content

Action Input:

{}

Noah Williams

- Email: noah.williams@example.dev
- Phone: +44 11 111 1111

Profile

Noah Williams is a distinguished Software Engineering Leader with an 18-year tenure in the technology industry, where he has excelled in leading both remote and in-office engineering teams. His expertise spans across software development, process innovation, and enhancing team collaboration. He is highly proficient in programming languages such as Ruby, Python, JavaScript, TypeScript, and Elixir, alongside deep expertise in various front end frameworks. Noah's significant experience in data science and machine learning has enabled him to spearhead successful deployments of scalable AI solutions and innovative data model development.

Work History

DataKernel: Director of Software Engineering (remote) – 2022 - Present

- Noah has transformed the engineering division into a key revenue pillar for DataKernel, rapidly expanding the customer base from inception to a robust community.
- He spearheaded the integration of cutting-edge AI technologies and the use of scalable vector databases, which significantly enhanced the product's capabilities and market positioning.
- Under his leadership, the team has seen a substantial growth in skill development, with a focus on achieving strategic project goals that have significantly influenced the company's direction.
- Noah also played a critical role in defining the company's long-term strategic initiatives, particularly in adopting AI technologies that have set new benchmarks within the industry.

DataKernel: Senior Software Engineering Manager (remote) – 2019 - 2022

- Directed the engineering strategy and operations in close collaboration with C-level executives, playing a pivotal role in shaping the company's technological trajectory.
- Managed diverse teams across multiple time zones in North America and Europe, creating an environment of transparency and mutual respect which enhanced team performance and morale.
- His initiatives in recruiting, mentoring, and retaining top talent have been crucial in fostering a culture

re of continuous improvement and high performance.

InnovPet: Founder & CEO (remote) – 2019 - 2022

- Noah founded InnovPet, a startup focused on innovative IoT solutions for pet care, including a revolutionary GPS tracking collar that significantly enhanced pet safety and owner peace of mind.
- He was responsible for overseeing product development from concept through execution, working closely with engineering teams and marketing partners to ensure a successful market entry.
- Successfully set up an advisory board, established production facilities overseas, and navigated the company through a successful initial funding phase, showcasing his leadership and entrepreneurial acumen.
- Built the initial version of the product leveraging MongoDB

EliteDevs: Engineering Manager (remote) – 2018 - 2019

- Noah was instrumental in formulating and executing strategic plans that enhanced inter-departmental coordination and trust, leading to better project outcomes.
- He managed multiple engineering teams, fostering a culture that balances productivity with innovation, and implemented goal-setting frameworks that aligned with the company's long-term goals.
- Was a very hands on manager using ruby on rails and react to build out a new product.

PrintPack: Engineering Manager (remote) – 2016 - 2018

- Led the formation and development of a high-performance engineering team that was pivotal in increasing company revenue by 500% within two years.
- His leadership in integrating data analytics into business decision-making processes led to the development of a predictive modeling tool that revolutionized customer behavior analysis.

DriveAI: Senior Software Engineer (remote) – 2015 - 2016

- Developed and optimized a central API that significantly improved the functionality used by a large engineering team and thousands of users, enhancing overall system performance and user satisfaction.
- Implemented several critical enhancements, including advanced caching strategies that drastically reduced response times and system loads.

BetCraft: CTO – 2013 - 2015

- Led the technology strategy post-Series A funding, directly reporting to the board and guiding the company through a phase of significant technological advancement and network expansion.
- His strategic initiatives and partnerships significantly improved platform performance and expanded the company's market reach.
- Helped build his initial product using both React and Angular and got pretty good at it.

Education

MBA in Information Technology
London Business School - MBA

Advanced Leadership Techniques
University of London - Certification

Data Science Specialization
Coursera (Johns Hopkins University) - Certification

B.Sc. in Computer Science
University of Edinburgh - Bachelor's degree

Noah Williams is an ideal candidate for senior executive roles, particularly in companies seeking leadership with a robust blend of technical and strategic expertise.

Final Answer:

Noah Williams

- Email: noah.williams@example.dev
- Phone: +44 11 111 11111

Summary

Noah Williams is a distinguished Software Engineering Leader with an 18-year tenure in the technology industry, specializing in managing remote and in-office teams. His expertise spans software development, process innovation, and enhancing team collaboration. Highly proficient in Ruby, Python, JavaScript, TypeScript, and Elixir, he has deep expertise in various front end frameworks. Noah's significant experience in data science and machine learning has enabled him to spearhead successful deployments of scalable AI solutions and innovative data model development.

Work Experience

DataKernel: Director of Software Engineering (remote) – 2022 - Present

- Transformed engineering division into key revenue pillar, expanding customer base and enhancing product capabilities with cutting-edge AI technologies and scalable vector databases.
- Led team growth in skill development, focusing on strategic project goals that influence company direction.

DataKernel: Senior Software Engineering Manager (remote) – 2019 - 2022

- Directed engineering strategy and operations, shaping company's technological trajectory.
- Managed teams across multiple time zones, fostering transparency and mutual respect for enhanced performance.

InnovPet: Founder & CEO (remote) – 2019 - 2022

- Founded startup focused on innovative IoT solutions for pet care, overseeing product development and market entry.

- Set up advisory board, established production facilities overseas, and navigated company through successful initial funding phase.

EliteDevs: Engineering Manager (remote) – 2018 - 2019

- Formulated and executed strategic plans that enhanced inter-departmental coordination and trust, leading to better project outcomes.
- Managed multiple engineering teams, fostering a culture that balances productivity with innovation.

PrintPack: Engineering Manager (remote) – 2016 - 2018

- Led high-performance engineering team that increased company revenue by 500% within two years.
- Integrated data analytics into business decision-making processes, revolutionizing customer behavior analysis.

DriveAI: Senior Software Engineer (remote) – 2015 - 2016

- Developed and optimized central API that improved functionality for large engineering team and users.
- Implemented critical enhancements, including advanced caching strategies for improved system performance.

BetCraft: CTO – 2013 - 2015

- Led technology strategy post-Series A funding, guiding company through significant technological advancement and network expansion.
- Improved platform performance and market reach through strategic initiatives and partnerships.

Education

- MBA in Information Technology - London Business School
- Advanced Leadership Techniques Certification - University of London
- Data Science Specialization Certification - Coursera (Johns Hopkins University)
- B.Sc. in Computer Science - University of Edinburgh

Noah Williams excels in leadership roles requiring a strategic and innovative approach, with a valuable blend of technical expertise and business acumen.

> Finished chain.

```
[DEBUG]: == [Resume Strategist for Engineers] Task output: # Noah Williams
- Email: noah.williams@example.dev
- Phone: +44 11 111 11111
```

Summary

Noah Williams is a distinguished Software Engineering Leader with an 18-year tenure in the technology industry, specializing in managing remote and in-office teams. His expertise spans software development, process innovation, and enhancing team collaboration. Highly proficient in Ruby, Python, JavaScript, TypeScript, and Elixir, he has deep expertise in various front end frameworks. Noah's significant experience in data science

nance and machine learning has enabled him to spearhead successful deployments of scalable AI solutions and innovative data model development.

Work Experience

DataKernel: Director of Software Engineering (remote) – 2022 - Present

- Transformed engineering division into key revenue pillar, expanding customer base and enhancing product capabilities with cutting-edge AI technologies and scalable vector databases.
- Led team growth in skill development, focusing on strategic project goals that influence company direction.

DataKernel: Senior Software Engineering Manager (remote) – 2019 - 2022

- Directed engineering strategy and operations, shaping company's technological trajectory.
- Managed teams across multiple time zones, fostering transparency and mutual respect for enhanced performance.

InnovPet: Founder & CEO (remote) – 2019 - 2022

- Founded startup focused on innovative IoT solutions for pet care, overseeing product development and market entry.
- Set up advisory board, established production facilities overseas, and navigated company through successful initial funding phase.

EliteDevs: Engineering Manager (remote) – 2018 - 2019

- Formulated and executed strategic plans that enhanced inter-departmental coordination and trust, leading to better project outcomes.
- Managed multiple engineering teams, fostering a culture that balances productivity with innovation.

PrintPack: Engineering Manager (remote) – 2016 - 2018

- Led high-performance engineering team that increased company revenue by 500% within two years.
- Integrated data analytics into business decision-making processes, revolutionizing customer behavior analysis.

DriveAI: Senior Software Engineer (remote) – 2015 - 2016

- Developed and optimized central API that improved functionality for large engineering team and users.
- Implemented critical enhancements, including advanced caching strategies for improved system performance.

BetCraft: CTO – 2013 - 2015

- Led technology strategy post-Series A funding, guiding company through significant technological advancement and network expansion.
- Improved platform performance and market reach through strategic initiatives and partnerships.

Education

- MBA in Information Technology - London Business School
- Advanced Leadership Techniques Certification - University of London
- Data Science Specialization Certification - Coursera (Johns Hopkins University)
- B.Sc. in Computer Science - University of Edinburgh

Noah Williams excels in leadership roles requiring a strategic and innovative approach, with a valuable blend of technical expertise and business acumen.

[DEBUG]: == Working Agent: Engineering Interview Preparer

[INFO]: == Starting Task: Create a set of potential interview questions and talking points based on the tailored resume and job requirements. Utilize tools to generate relevant questions and discussion points. Make sure to use these question and talking points to help the candidate highlight the main points of the resume and how it matches the job posting.

> Entering new CrewAgentExecutor chain...

Thought: I need to gather relevant information from Noah Williams' resume to create tailored interview questions and talking points based on his experience and skills.

Action: Read a file's content

Action Input: {}

Noah Williams

- Email: noah.williams@example.dev
- Phone: +44 11 111 11111

Profile

Noah Williams is a distinguished Software Engineering Leader with an 18-year tenure in the technology industry, where he has excelled in leading both remote and in-office engineering teams. His expertise spans across software development, process innovation, and enhancing team collaboration. He is highly proficient in programming languages such as Ruby, Python, JavaScript, TypeScript, and Elixir, alongside deep expertise in various front end frameworks. Noah's significant experience in data science and machine learning has enabled him to spearhead successful deployments of scalable AI solutions and innovative data model development.

Work History

DataKernel: Director of Software Engineering (remote) – 2022 - Present

- Noah has transformed the engineering division into a key revenue pillar for DataKernel, rapidly expanding the customer base from inception to a robust community.
- He spearheaded the integration of cutting-edge AI technologies and the use of scalable vector databases, which significantly enhanced the product's capabilities and market positioning.
- Under his leadership, the team has seen a substantial growth in skill development, with a focus on achieving strategic project goals that have significantly influenced the company's direction.
- Noah also played a critical role in defining the company's long-term strategic initiatives, particularly in adopting AI technologies that have set new benchmarks within the industry.

DataKernel: Senior Software Engineering Manager (remote) – 2019 - 2022

- Directed the engineering strategy and operations in close collaboration with C-level executives, playing a pivotal role in shaping the company's technological trajectory.
- Managed diverse teams across multiple time zones in North America and Europe, creating an environment of transparency and mutual respect which enhanced team performance and morale.
- His initiatives in recruiting, mentoring, and retaining top talent have been crucial in fostering a culture of continuous improvement and high performance.

InnovPet: Founder & CEO (remote) – 2019 - 2022

- Noah founded InnovPet, a startup focused on innovative IoT solutions for pet care, including a revolutionary GPS tracking collar that significantly enhanced pet safety and owner peace of mind.
- He was responsible for overseeing product development from concept through execution, working closely with engineering teams and marketing partners to ensure a successful market entry.
- Successfully set up an advisory board, established production facilities overseas, and navigated the company through a successful initial funding phase, showcasing his leadership and entrepreneurial acumen.
- Built the initial version of the product leveraging MongoDB

EliteDevs: Engineering Manager (remote) – 2018 - 2019

- Noah was instrumental in formulating and executing strategic plans that enhanced inter-departmental coordination and trust, leading to better project outcomes.
- He managed multiple engineering teams, fostering a culture that balances productivity with innovation, and implemented goal-setting frameworks that aligned with the company's long-term goals.
- Was a very hands on manager using ruby on rails and react to build out a new product.

PrintPack: Engineering Manager (remote) – 2016 - 2018

- Led the formation and development of a high-performance engineering team that was pivotal in increasing company revenue by 500% within two years.
- His leadership in integrating data analytics into business decision-making processes led to the development of a predictive modeling tool that revolutionized customer behavior analysis.

DriveAI: Senior Software Engineer (remote) – 2015 - 2016

- Developed and optimized a central API that significantly improved the functionality used by a large engineering team and thousands of users, enhancing overall system performance and user satisfaction.

- Implemented several critical enhancements, including advanced caching strategies that drastically reduced response times and system loads.

BetCraft: CTO – 2013 - 2015

- Led the technology strategy post-Series A funding, directly reporting to the board and guiding the company through a phase of significant technological advancement and network expansion.
- His strategic initiatives and partnerships significantly improved platform performance and expanded the company's market reach.
- Helped build his initial product using both React and Angular and got pretty good at it.

Education

MBA in Information Technology
London Business School - MBA

Advanced Leadership Techniques
University of London - Certification

Data Science Specialization
Coursera (Johns Hopkins University) - Certification

B.Sc. in Computer Science
University of Edinburgh - Bachelor's degree

Noah Williams is an ideal candidate for senior executive roles, particularly in companies seeking leadership with a robust blend of technical and strategic expertise.

Final Answer:

Based on Noah Williams' extensive experience and skills outlined in his resume, here are some tailored interview questions and talking points for the initial interview:

1. Can you elaborate on your experience in transforming engineering divisions into key revenue pillars, as seen in your role at DataKernel? How did you integrate cutting-edge AI technologies and scalable databases to enhance product capabilities?
2. In your role as a Founder & CEO at InnovPet, how did you navigate the company through successful initial funding phases? Can you share insights into setting up an advisory board and establishing production facilities overseas?
3. As a Senior Software Engineering Manager at DataKernel, how did you manage diverse teams across different time zones to foster transparency and mutual respect? What strategies did you employ to enhance team performance?

ormance and morale?

4. Can you discuss your experience at BetCraft as a CTO, leading the technology strategy post-Series A funding? How did your strategic initiatives and partnerships contribute to improving platform performance and market reach?
5. Describe a project where you utilized your expertise in Ruby, Python, JavaScript, TypeScript, and Elixir to develop innovative solutions. How did your technical skills contribute to the success of the project?
6. How have you leveraged your deep expertise in various front-end frameworks to enhance user experiences in consumer applications? Can you provide examples of projects where your front-end knowledge played a significant role?
7. Given your experience in managing remote and in-office engineering teams, how do you approach building and maintaining high-performance teams? What strategies have you found effective in recruiting and retaining top talent?
8. As someone with a background in data science and machine learning, how have you applied your expertise to deploy scalable AI solutions and develop innovative data models? Can you share a specific project where your data science skills were instrumental?
9. In your role as an Engineering Manager at PrintPack, how did you lead the integration of data analytics into business decision-making processes? What impact did this have on customer behavior analysis and company revenue?
10. How do you stay current with the latest advancements in AI/ML models and big data tools, such as Hadoop, Spark, and Kafka? How do you see these technologies shaping the future of AI applications and data handling?

These questions are designed to help Noah Williams showcase his expertise, experience, and skills that align with the job requirements. By preparing thoughtful responses to these questions, Noah can effectively highlight his achievements and capabilities during the interview process.

> Finished chain.

[DEBUG]: == [Engineering Interview Preparer] Task output: Based on Noah Williams' extensive experience and skills outlined in his resume, here are some tailored interview questions and talking points for the initial interview:

1. Can you elaborate on your experience in transforming engineering divisions into key revenue pillars, as seen in your role at DataKernel? How did you integrate cutting-edge AI technologies and scalable databases to enhance product capabilities?

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3. As a Senior Software Engineering Manager at DataKernel, how did you manage diverse teams across different time zones to foster transparency and mutual respect? What strategies did you employ to enhance team performance and morale?
4. Can you discuss your experience at BetCraft as a CTO, leading the technology strategy post-Series A funding? How did your strategic initiatives and partnerships contribute to improving platform performance and market reach?
5. Describe a project where you utilized your expertise in Ruby, Python, JavaScript, TypeScript, and Elixir to develop innovative solutions. How did your technical skills contribute to the success of the project?
6. How have you leveraged your deep expertise in various front-end frameworks to enhance user experiences in consumer applications? Can you provide examples of projects where your front-end knowledge played a significant role?
7. Given your experience in managing remote and in-office engineering teams, how do you approach building and maintaining high-performance teams? What strategies have you found effective in recruiting and retaining top talent?
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9. In your role as an Engineering Manager at PrintPack, how did you lead the integration of data analytics into business decision-making processes? What impact did this have on customer behavior analysis and company revenue?
10. How do you stay current with the latest advancements in AI/ML models and big data tools, such as Hadoop, Spark, and Kafka? How do you see these technologies shaping the future of AI applications and data handling?

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- Display the generated `tailored_resume.md` file.

```
In [17]: from IPython.display import Markdown, display  
display(Markdown("./tailored_resume.md"))
```

Noah Williams

- Email: noah.williams@example.dev
- Phone: +44 11 111 11111

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Noah Williams excels in leadership roles requiring a strategic and innovative approach, with a valuable blend of technical expertise and business acumen.

- Display the generated `interview_materials.md` file.

```
In [18]: display(Markdown("./interview_materials.md"))
```

Based on Noah Williams' extensive experience and skills outlined in his resume, here are some tailored interview questions and talking points for the initial interview:

1. Can you elaborate on your experience in transforming engineering divisions into key revenue pillars, as seen in your role at DataKernel? How did you integrate cutting-edge AI technologies and scalable databases to enhance product capabilities?
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3. As a Senior Software Engineering Manager at DataKernel, how did you manage diverse teams across different time zones to foster transparency and mutual respect? What strategies did you employ to enhance team performance and morale?
4. Can you discuss your experience at BetCraft as a CTO, leading the technology strategy post-Series A funding? How did your strategic initiatives and partnerships contribute to improving platform performance and market reach?
5. Describe a project where you utilized your expertise in Ruby, Python, JavaScript, TypeScript, and Elixir to develop innovative solutions. How did your technical skills contribute to the success of the project?
6. How have you leveraged your deep expertise in various front-end frameworks to enhance user experiences in consumer applications? Can you provide examples of projects where your front-end knowledge played a significant role?
7. Given your experience in managing remote and in-office engineering teams, how do you approach building and maintaining high-performance teams? What strategies have you found effective in recruiting and retaining top talent?
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9. In your role as an Engineering Manager at PrintPack, how did you lead the integration of data analytics into business decision-making processes? What impact did this have on customer behavior analysis and company revenue?
10. How do you stay current with the latest advancements in AI/ML models and big data tools, such as Hadoop, Spark, and Kafka? How do you see these technologies shaping the future of AI applications and data handling?

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capabilities during the interview process.

CONGRATULATIONS!!!

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- Once you finish watching all the videos, you will see the "In progress" image on the bottom left turn into "Accomplished".
- Click on "Accomplished" to view the course completion page with your name on it.
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- **Tag @João (Joe) Moura, @crewAI, and @DeepLearning.AI, (and a few of your friends if you'd like them to try out the course)**
- **João and DeepLearning.AI will "like"/reshare/comment on your post!**

Get a completion badge that you can add to your LinkedIn profile!

- Go to learn.crewai.com.
- Upload your screenshot of your course completion page.
- You'll get a badge from CrewAI that you can share!

(João will also talk about this in the last video of the course.)

In []: