

# API-Dokumentation mit Code-Beispielen

## Python Integration

```
from rag_system import RAGClient import asyncio async def main(): client = RAGClient( base_url="http://localhost:8000", api_key="your-api-key" ) # Dokument hochladen with open("document.pdf", "rb") as f: result = await client.upload_document( file=f, metadata={"category": "technical"} ) print(f"Document ID: {result.document_id}") # Semantische Suche search_results = await client.search( query="How does machine learning work?", max_results=5 ) for result in search_results: print(f"Score: {result.similarity_score}") print(f"Content: {result.content[:100]}...") if __name__ == "__main__": asyncio.run(main())
```

## JavaScript/Node.js Integration

```
const axios = require('axios'); const fs = require('fs'); class RAGClient { constructor(baseUrl, apiKey) { this.baseUrl = baseUrl; this.apiKey = apiKey; } async uploadDocument(filePath, metadata = {}) { const formData = new FormData(); formData.append('file', fs.createReadStream(filePath)); formData.append('metadata', JSON.stringify(metadata)); const response = await axios.post(` ${this.baseUrl}/documents/upload`, formData, { headers: { 'X-API-Key': this.apiKey, 'Content-Type': 'multipart/form-data' } } ); return response.data; } async search(query, maxResults = 10) { const response = await axios.post(` ${this.baseUrl}/search`, { query: query, max_results: maxResults }, { headers: { 'X-API-Key': this.apiKey, 'Content-Type': 'application/json' } } ); return response.data.results; } } // Verwendung const client = new RAGClient('http://localhost:8000', 'your-api-key'); client.uploadDocument('./document.pdf').then(result => console.log('Uploaded:', result)).catch(err => console.error('Error:', err));
```

## REST API mit curl

```
# Dokument hochladen curl -X POST http://localhost:8000/documents/upload \ -H "X-API-Key: your-api-key" \ -F "file=@document.pdf" \ -F "metadata={"category":"research"}" # Semantische Suche curl -X POST http://localhost:8000/search \ -H "X-API-Key: your-api-key" \ -H "Content-Type: application/json" \ -d '{ "query": "machine learning algorithms", "max_results": 5, "similarity_threshold": 0.7 }' # Dokument löschen curl -X DELETE http://localhost:8000/documents/123 \ -H "X-API-Key: your-api-key" # Systemstatus abfragen curl -X GET http://localhost:8000/health \ -H "X-API-Key: your-api-key"
```