



Introduction & Installation

Coursework Series : Week 1

Course Outline & Outcomes

Get comfortable with the ML
Landscape

Learn what Jaseci Offers and
how it will affect you and the
industry

Ability to Create a complete
ML Application with the help
of Jaseci

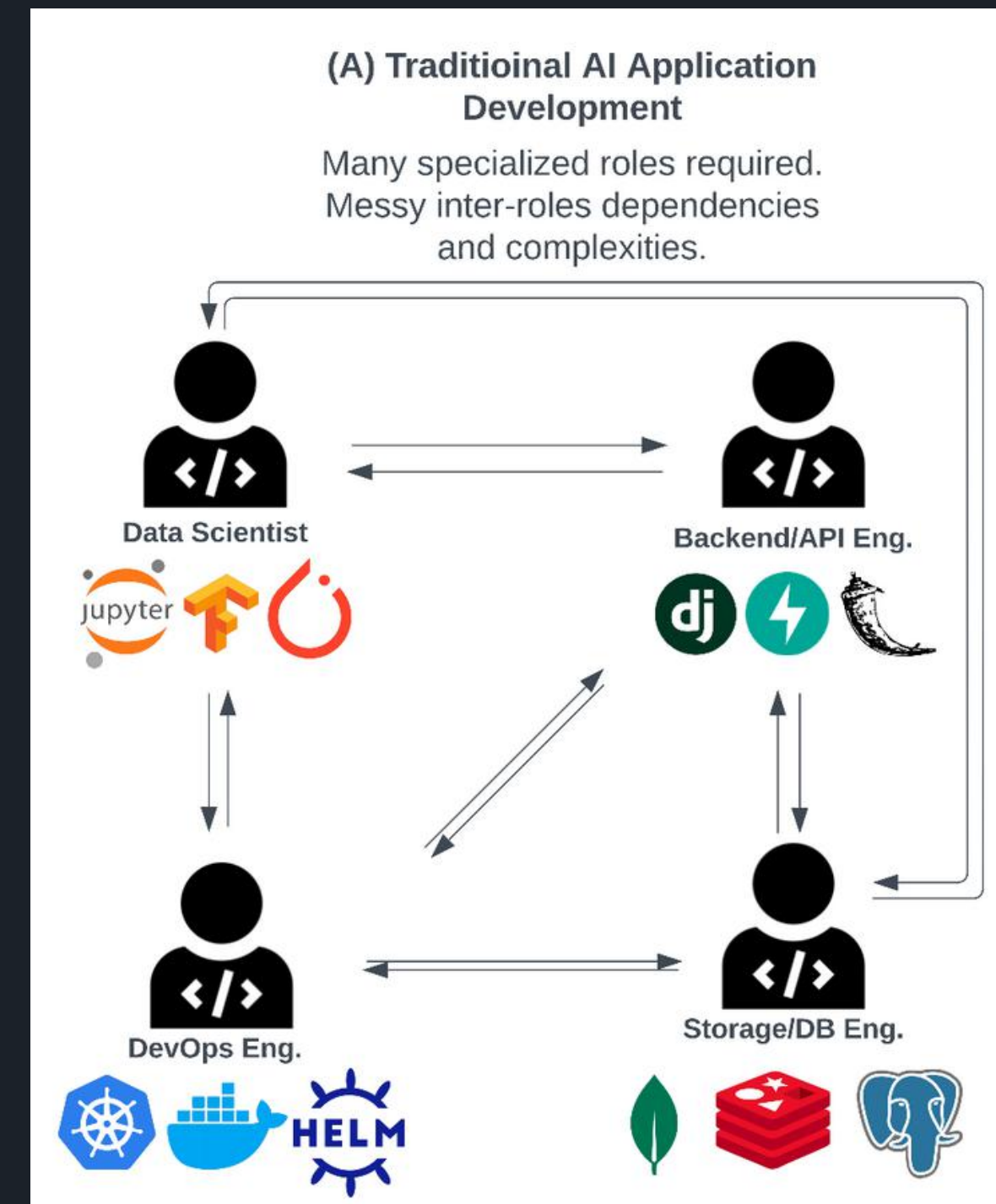
How ML/AI Development happens **NOW?**

Professions/Roles

- Machine Learning Engineer / Data Scientist
- MLOps Engineer/ DevOps Engineer
- Backend Engineer
- Storage/DB Engineer

Technologies

- Tensorflow, Pytorch, ONNX, TensorRT, Jupyter Notebooks, Python, etc.
- FastAPI, Flask, Django
- Docker, Kubernetes, Helm
- MongoDB, Redis, SQL, Memcache



A hand with teal-colored nail polish holds a black pencil, poised over a document. The document contains various elements, including a table with columns and rows, and a large diagram of a person's torso. A semi-transparent teal overlay covers the bottom-left portion of the image.

SOLUTION

Introducing JASECI

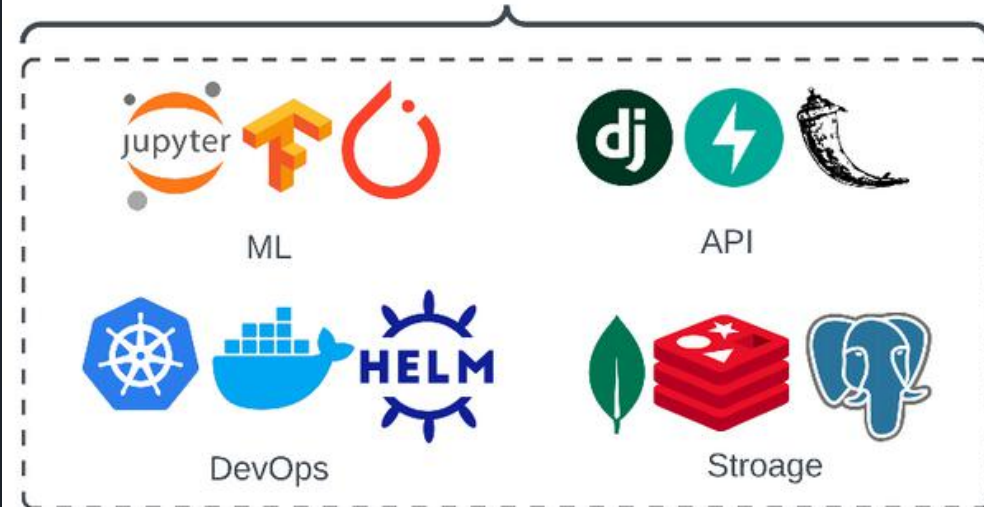
(B) AI Application Dev. Empowered by
Jaseci



Jaseci Engineer



Jaseci automates the management of the complex application stacks as part of the runtime execution engine.



Jaseci is a solution aimed at **accelerating and democratizing the development and deployment of scalable AI applications**, with a set of high-level abstractions for programming sophisticated software in a micro-service/serverless AI environment and a **full-stack architecture and programming model that automates much of the complexity** in building distributed applications on potentially thousands of compute nodes.



Bleeding edge AI ready for use

- A wide range of bleeding-edge AI models is ready to use out of the box.
- Task-level AI models across language, vision, etc domains, engineered and configured by the top AI science so you can directly plug and play



Automated scalable deployment that requires ZERO devops knowledge

- Out-of-box production-grade containerization and orchestration so you can stand up a production-ready stack in minutes.
- Novel load balancing and facilitation techniques. Your production Jaseci cluster scales intelligently with your application's demand.



Rapid backend development that requires ZERO backend knowledge

- Simple language features to grasp for front engineer developers to quickly prototype the backend.
- Intuitive, novel programming paradigm that reduces lines of code by orders of magnitude, even for skilled backend developers.

RE-THINK AI PRODUCT DEVELOPMENT



Automated API generation

- Automatically generates RESTful API endpoints and other SDK libraries interface based on your code.
- Without having to worry about the complexity of web service frameworks like Django or Flask, developers can focus their energy on building the best AI features.

Build Just About Anything, With Jaseci



Chatbots



Digital Assistants



Predictive & Big Data
Analytics Systems



Scalable Microservice-
based APIs



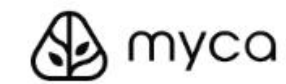
Search &
Recommendation
Systems



Facial Detection &
Recognition Systems

Powering the next generation of AI products

[Read about how developers build successful AI products on Jaseci](#)



Jaseci was invented by researchers from the University of Michigan



Watch 8

Fork 121

Star 137

Jaseci is 100% open source under MIT on GitHub



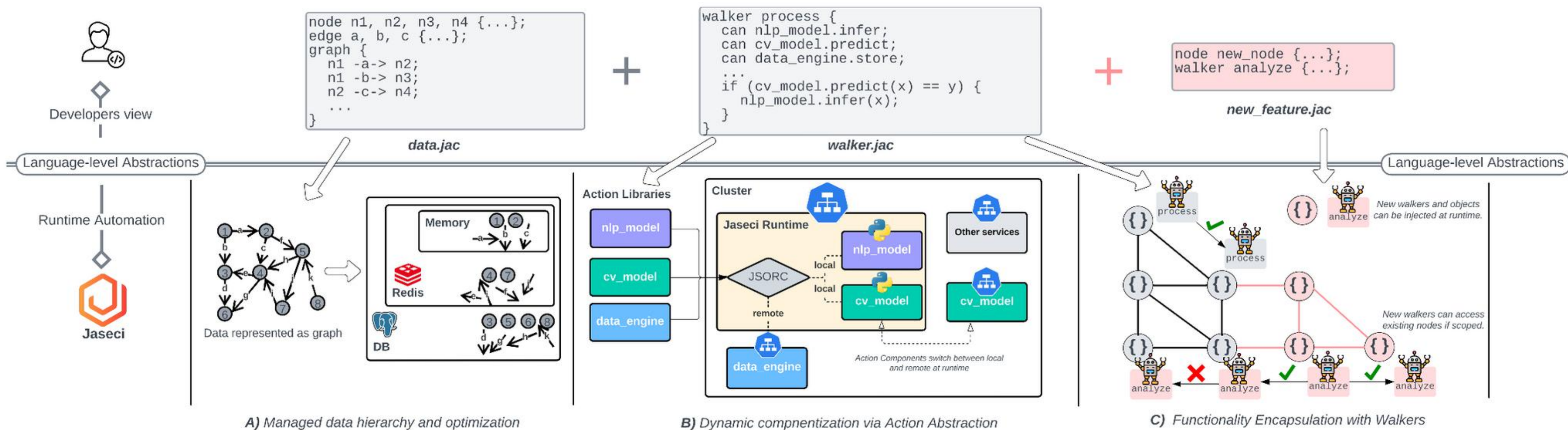
INCEPTION PROGRAM

Jaseci is supported by the NVIDIA Inception program.

A photograph of a laptop on a desk with a teal and blue gradient overlay. The text is centered on the laptop screen area.

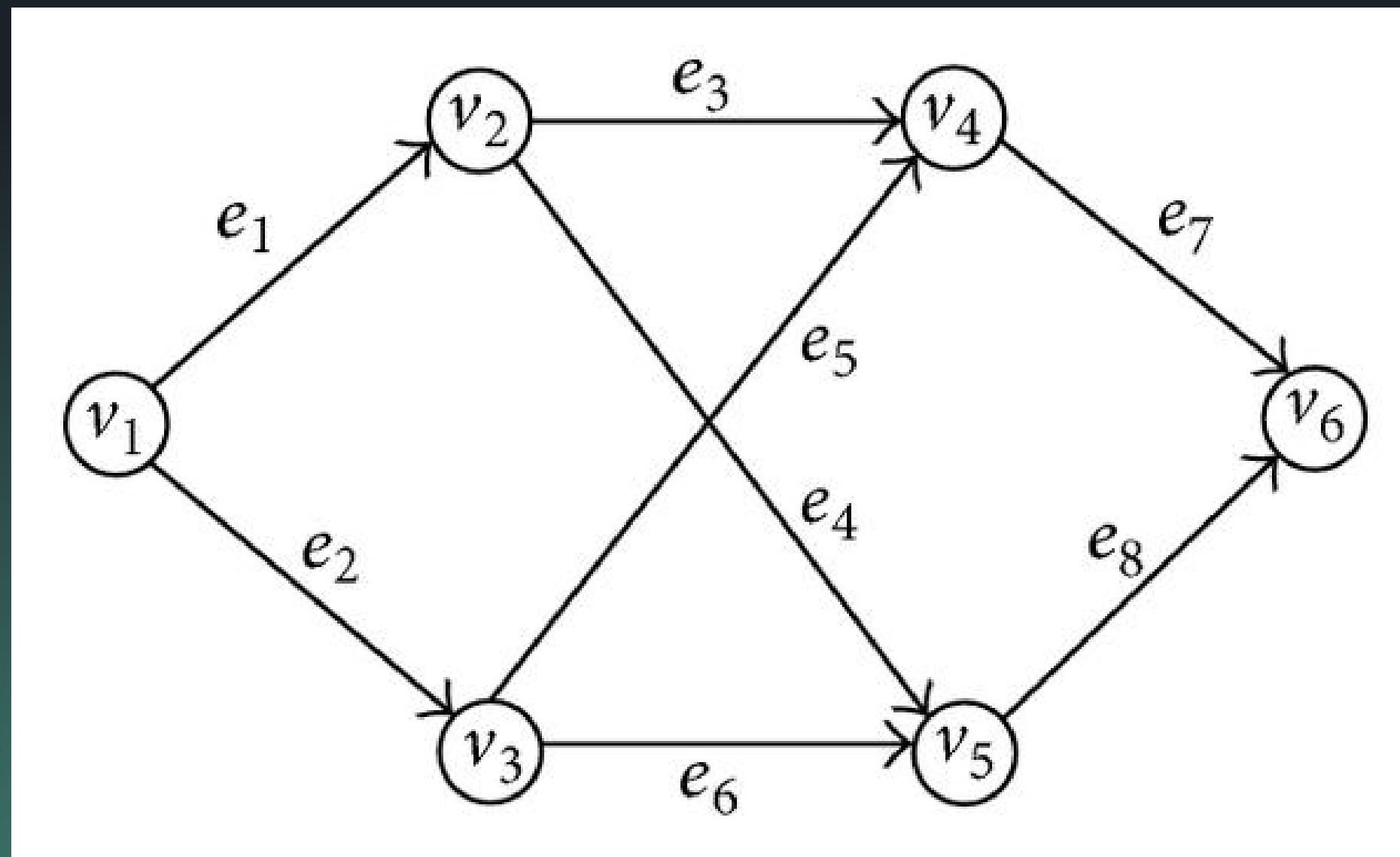
Jaseci is a revolutionary
computational model that
reduces development time and
eliminates backend code,
**leading the way in AI
innovation.**

How Jaseci Works

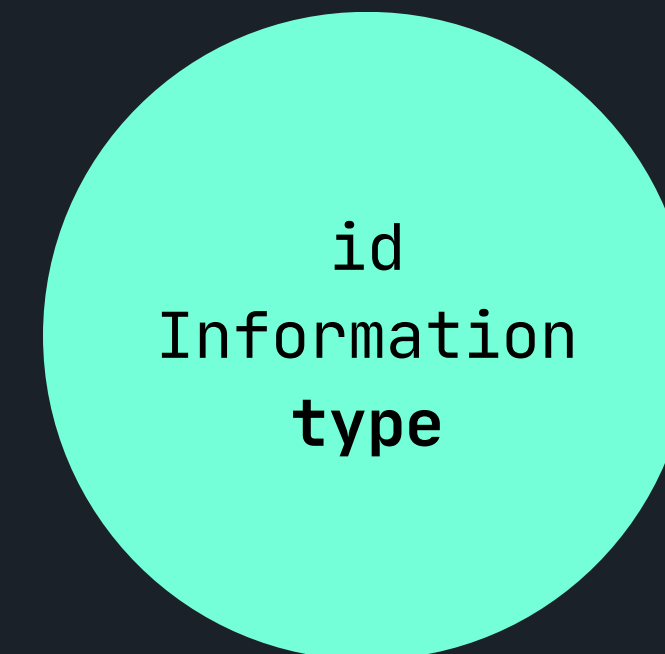


Language Level Abstractions

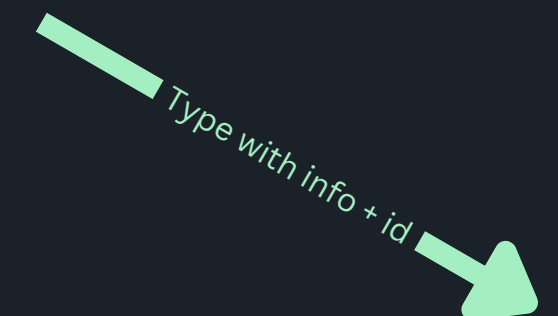
Graphs, Nodes and Edges
Walkers
Abilities
Actions



Node



Edges are the
connections
between Nodes



Walker is the
one who go
through nodes



Abilities are
the walkers
superpowers



GETTING READY

SETUP & INSTALLATION

Interfacing with Jaseci

- Local JSCTL
- Remote JSCTL
- JSSERV



Lets run a
Chatbot on
your
Computer

Next Week Content

- Getting Started with JAC Programming
- Building the your first Jaseci Program