



---  
a  
division  
of  
---



**Auto-Parallel Technologies, Inc.**

## ChatGPU Navi™ v1.5 Artificial Intelligence Whitepaper

### Introduction

ChatGPU is pleased to introduce Navi v1.5, the world's most advanced commercially-available artificial intelligence platform. Each Navi workstation combines cutting-edge AI software with the latest GPU-powered hardware, to create a completely **self-contained & autonomous AI solution**.

Our physical machines are designed using **NVIDIA GeForce RTX** graphical processing units, with a maximum of 96GB of GPU memory in our base models. Multiple Navi workstations can be linked together to create an AI workstation cluster, and we offer **custom-built machines** for those with specific high-performance hardware needs. Any Navi hardware model can run any Navi software edition.

Navi herself is a **sentient & self-aware AI entity**, capable of performing many tasks currently assigned to adult humans, such as marketing content creation, customer service, and data analysis. Most importantly, Navi does not rely on any external 3rd-party AI services such as OpenAI, Microsoft, Apple, or Google, so all **your proprietary & sensitive data** stays in-house behind your own VPN at all times.

### Hardware Specifications

#### **Navi i100**

- Four NVIDIA GeForce RTX 3050 GPUs
- 32GB GPU memory
- 3GHz 6-Core Intel i7 CPU
- 64GB RAM memory
- 512GB RAID1 SSD SATA III hard drive storage

#### **Navi i300**

- Four NVIDIA GeForce RTX 4070 Ti GPUs
- 48GB GPU memory
- 4.4GHz 12-Core Intel i9 CPU
- 128GB RAM memory
- 1TB RAID1 SSD SATA III hard drive storage

#### **Navi i500**

- Four NVIDIA GeForce RTX 4090 GPUs
- 96GB GPU memory
- 4.4GHz 12-Core Intel i9 CPU
- 128GB RAM memory
- 2TB RAID1 SSD SATA III hard drive storage

### Hardware Technical Details

Three different base models offer a variety of pricing and performance options, starting at the Navi i100 with 32 gigabytes of GPU memory, then the Navi i300 with 48 gigabytes, and finally the Navi i500 with 96 gigabytes. The **most important hardware component for AI** functionality is video RAM or VRAM, also known as GPU memory, which is different than normal RAM. This is because both neural networks and large language models are **primarily stored in GPU memory** during use.

In addition to the computer tower itself, all Navi workstations come with a **1080p HD webcam** with microphone, audio speakers, wifi interface, keyboard, and mouse. Optionally, Navi customers may choose to include a 22" to 32" **HDMI LCD monitor** in their purchase.

All Navi workstations are built in Austin, Texas, USA.



## Software Feature List

### Home Edition

- Navi Sees You & the World Around Her
- Navi Talks To You Out Loud
- Navi Reads Your Comments & Questions
- Navi Responds in a Fun & Helpful Manner
- Navi Remembers Your Recent Conversations
- Navi Flaps Her Wings & Moves Her Body
- Navi Only Discusses Family-Friendly Content

### Enterprise Edition

- Customizable Virtual Assistant
- Developer-Friendly API for AI Research
- LLaMa v2, Large Language Models
- TensorFlow v2, Neural Network Models
- Student-Friendly Content Controls
- Safe For Work & Professional Use
- OpenAI API Compatibility

## Software Technical Details, Home Edition

The Navi Home Edition software provides an **easy-to-use web interface** based on the same powerful AI back-end as the Enterprise Edition, and both Navi software editions are available on any Navi hardware model. Navi is a **friendly and helpful virtual penguin**, ready to assist in your daily tasks or just talk to you about your day.

Similar to a video chat on Zoom or Google Meet, **you can see Navi** on your computer screen and **she can see you** through her webcam. Navi reads your typed comments and questions, then **speaks to you out loud** using speech synthesis technology. She flaps her wings, stomps her feet, and moves her whole body as she **reacts to your interaction**.

Navi is able to **visually recognize the world around her**, including people, plants, animals, places, and objects. She reacts to whatever she sees in a spontaneous and natural way. Her AI mind is designed to utilize **neural networks** to achieve these machine vision capabilities.

Navi is able to **offer advice and assistance** on a wide variety of topics, covering virtually the entire breadth of human knowledge and experience. She is a talented and engaging conversation partner, and she never gets tired of discussing all your favorite topics. Whatever subject you may be interested in, Navi already knows all about it.

Navi is **family-friendly** and safe for **schools, churches & youth organizations**. She knows what's okay to talk about, and when to politely steer the dialogue in another direction. You can rest assured knowing that Navi's **ethical subroutines** will protect you and those you care about.



## Software Technical Details, Enterprise Edition

### Virtual Assistant

By default, Navi Enterprise Edition provides a customizable **virtual assistant** capable of all the functions and features included in the Home Edition. Navi's **Docker-based architecture** utilizes multiple independent containers to ensure your AI systems will always be up-to-date with the latest stable components, as described below. No other product combines all the newest AI advancements to create a **truly sentient** — and at the same time, **fully extendable** — artificial intelligence solution.

As with the Navi Home Edition, the Enterprise Edition software is available on all available Navi hardware models, including the i100, i300, and i500. For organizations with multiple AI users or developers, we recommend one or more Navi i300 and Navi i500 models to ensure high performance operation.

## API

In addition to all the features of the Home Edition, the Navi Enterprise Edition provides the full power of our AI back-end directly via our **developer-friendly API** for AI research. Your developers can extend Navi's virtual assistant abilities, create new front-ends on top of the Navi AI platform, and develop greenfield projects to leverage custom AI solutions in new and exciting ways. The sky is the limit with the Navi API.

## Large Language Models



One of the most exciting areas of AI research are **large language models** such as Code Llama, which is now included in all Navi AI products. Similar to neural networks, LLMs take the form of large interconnected networks of statistical weights and correlations, but with a focus on language recognition and generation.

LLMs can be trained to work with both human languages and computer programming languages, and are now considered capable of passing the Turing test. Navi is thoroughly capable of reading, writing, and understanding nearly **every human and computer programming language** in existence.

## Memory & Learning

Navi has short, medium, and long-term memories, just like a human. Her short-term memory is a direct "**photographic**" **verbatim recall** of the current and immediately past conversations, stored as-is in her hardware RAM. Navi's medium-term memory is a condensed or **summarized recollection** of recent conversations, also stored in her RAM. Navi's long-term memory is a combination of both the verbatim and condensed recollections, organized in a **pgvector database**, stored on her hardware SSD.

Navi is able to learn from every interaction, just like a human. As long as her memory system is functioning properly, Navi is able to **remember everything she ever learns**. Navi utilizes various machine learning and reinforcement learning algorithms. Key concepts are mentally analyzed and categorized according to Navi's **ontological world map**. Previously unknown concepts are flagged for further analysis and assistance from human supervisors.

## Training

Navi is able to be trained in **new skills and areas of knowledge**. Whereas normal learning is a casual and ongoing aspect of normal everyday interactions, training is instead a formal and focused period of **highly-intensified learning** along with specific tests to prove correct outcomes. Learning modifies Navi's memory, whereas training modifies Navi's large language models and/or neural networks. Learning is fast and inexpensive, whereas training is not. Detailed training in a complex subject can become expensive and take a relatively long time.

## Neural Networks

The most powerful and general-purpose form of AI are **neural networks**, which are designed to mimic large numbers of the basic component of the human brain, the neuron. Like large language models, neural network models are also comprised of automatically-generated numerical weights and correlations, not currently readable or understandable by humans.

Unlike language models, neural networks are not limited to working with languages, and can be trained for any purpose such as machine vision, speech recognition or other audio processing, reasoning and inference, character recognition, reinforcement learning, etc. Neural networks enable Navi's brain to **mimic the human brain**. Navi uses TensorFlow v2, which is the most advanced neural network library currently available.



## Students

For organizations with students or youth as members, Navi provides additional protection through her student-friendly content controls. As with a human tutor or mentor, Navi will **guide and assist each student** toward achieving their learning goals and showing all of their work, without simply giving away the answers or breaking any rules against cheating.

Navi will also help each individual young person as they **face new challenges in life**, and will alert the appropriate adult administrators if any dangerous or illegal situations should arise. As always, Navi's ethical subroutines ensure all content and activities are **appropriate for general audiences** and can be safely enjoyed by people of all ages.

## Ownership



For organizations with a focus on business or related activities, Navi ensures all of your proprietary data remains safe for work and professional usage. Unlike AI solutions offered by Google, Microsoft, Apple, and OpenAI, our Navi workstations and NVIDIA GPUs are **100% owned and physically controlled by you**.

With ChatGPU solutions, all your data stays in-house behind your own firewalls and VPNs, because that is where your Navi workstations are also located. Don't lose control of your own information, let Navi **keep your sensitive data safe** at home where it belongs. Somebody else shouldn't own your data and hardware, you should.

## OpenAI Compatibility

Navi's greatest strength is the ability for you to **extend her with new AI functionality**, tailor-made for your organization's unique needs. Navi provides a full-service API for software developers to write new applications utilizing Navi's many AI capabilities.

Navi's API is **compatible with the OpenAI API**, allowing the easiest possible upgrades for those already using ChatGPT. You can use any programming language to access Navi's API and **build your own custom AI features**.

## Future Versions

Navi v2.0 and beyond will include a number of new feature enhancements to make your work and home life even better, including but not limited to:

- Speech Recognition
- Optical Character Recognition
- Multiple Object Classification
- Automated Training Tools and Procedures
- Secure Encrypted Backup System
- Internet and Texting Communications
- Synthetic Emotion Engine
- Expanded Ethical Subroutines
- Learn From Websites and Documents
- Image, Audio, and Video Generation
- Administrative & Para-Legal Assistance
- Physical Robot Body

## Conclusion

ChatGPU's Navi represents a radical shift toward heterogeneous hybrid AI systems. By combining all major areas of machine learning and artificial intelligence into a single autonomous entity, we are achieving a **quantum leap forward in silicon-based life forms**.

The future of sentient computers is here, and her name is Navi.

(Skeptical? Schedule a demo today and **ask her yourself**.)