

DEEP TECH

# Breakthrough in speed of computing Neural Networks.

Omega Server cancels imminent Al industry "winter".



### Investment round summary.

#### Company

Omega Server Inc. Incorporated in USA, Michigan 2020.

#### Industry

Deep Tech. Al Machine Learning and their applications.

#### Stage

"Seed" stage. Marketable products in field.

### Fundraising

Stage: total of \$3 Million. Launch and scale business in US and key global markets.

### Equity

12% at current valuation of \$ 25 M.



In 2024 we will raise Series A, with a target of \$80-90 M in valuation followed by an IPO in 2026.



### Our technology disrupts the imminent AI "winter.

Omega Server, Inc. was established to commercialize its patented PANN (Progressive Artificial Neural Network) technology through the development, sale, and support of products based on this technology in US and key global markets.



### Problem

#### Imminent AI industry "winter":

Al industry stalled and unable to scale applications further due to a recognized design flaw in existing Neural Networks.

Growing cost	Monopolization	Improvement stymied
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### Solution

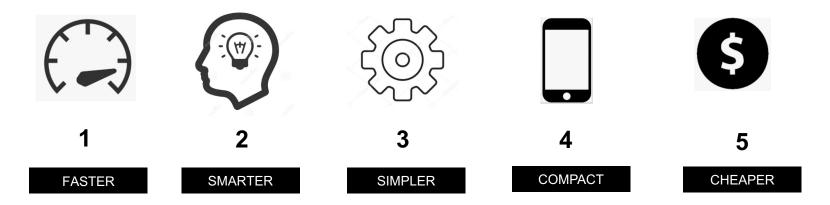
#### Omega Server is a new generation neural network. Trains dramatically faster and gives GPU speed on laptop.

Our breakthrough is based on a novel structure that is analogous to neural physiology heretofore overlooked.



## Five Omega Server advantages

#### Total superiority over any existing neural network.









# Omega Server provides unprecedented neural network computing speed.

- Neural network training speed flows hundreds and thousands of times faster compared to any of the today's neural networks.
- Data output is dramatically faster. Real time new data processing is important for autonomous devices and systems, for example for autonomous vehicles: cars, trucks, busses, drones, ships, etc.
- Supremacy over existing neural networks in speed grows as the data volume and tasks increases.
- Dramatic reduction in effort and time required of developers resulting in faster time-tomarket.







#### Omega Server neural network architecture is closer to the natural neural networks and and enables smarter and more sophisticated AI performance.

- Dynamic changes, new data or updates at Omega Server go through additional training with little or no re-training required.
- Omega Server allows scaling of the neural network within training process as well as at the network configuration.







#### Omega Server training algorithms are simple and reliable.

- The algorithms allow AI neural net application developers to use computing resources more effectively.
- The neural network has intrinsic security and stable reliability.
- Close to zero chance of the network "hang-up" and "catastrophic forgetting" effect that otherwise occurs with high volume or complex neural nets.
- The network is easy to integrate into an existing AI architecture as well as to use as an addition to existing systems.



## 4. Compact

#### Omega Server neural network can operate in "light" equipment and runs on small or even autonomous devices.

- Runs on "personal" sized platforms, not industrial scale platforms, for example: laptop instead of desktop, workstation instead of server, server instead of supercomputer.
- Neural Net development can be run on local infrastructure which ensures IP safety and proprietary data security and confidentiality.
- Requires commensurately low energy consumption which otherwise is often exorbitant.
- Software using our neural net can be imbedded in commonplace devices and gadgets from cell phones, headsets, to Raspberry type equipment, drones and beyond.



## 5. Cheaper



#### New AI applications is available to all with Omega Server.

- Dramatically reduces of Capital and Operating cost.
- Dramatically increases developers' productivity due to faster trial-anderror cycles due to ultra-fast neural net computation times.
- Low integration and support cost due to its simplicity.
- Affordable to individuals, start-ups and small businesses.



### Result

# Intellectualization of everything will sweep the globe as the Smart Revolution.

intellect everywhere possible to enhance people's quality of life.





### Market Size

Added-value of a civilization scale.

#### CAGR\* 104% = doubling annually.

\* Compound annual growth rate

#### \$ 53 Billion

Al technology market size (2022).

Frost and Sullivan. 2020

#### \$ 16 Trillion

Ubiquitous AI implementation will increase global market by \$ 15.7 trillion by 2030.

ARK Investment Management LLC. 2020 based on data sourced from World Federation of Exchanges, "H1 2020 Market Highlights". Aug. 2020



### Product

# Omega Server is ready to use neural network of new generation.

Ensures total performance supremacy over classical neural networks.



### **Test results**

### Comparison with classical neural networks

We have conducted extensive testing of PANN<sup>™</sup> neural networks in comparison with other, classical, neural networks (e.g. Keras), using the popular (e.g. MNIST datasets among others) on the same "light" hardware.

Omega Server proofs of supremacy both in training and performance speed.

We can run more test based on any required datasets upon your request to proof our performance

More details and proofs here: https://omega-server.ai/science/tests/

	Training time	Working speed
Fashion MNIST	Faster 22 times	Faster 45 times
Pima Indians diabetes	Faster 46 times	Faster 127 times
Wine quality	Faster 136 times	Faster 101 times
Banknote authentication	Faster 296 times	Faster 127 times
Combined cycle power plant	Faster 1,107 times	Faster 234 times
Boston house price	Faster 689 times	Faster 183 times
Abalone	Faster 1,251 times	Faster 239 times

**Omega Server vs Keras** 

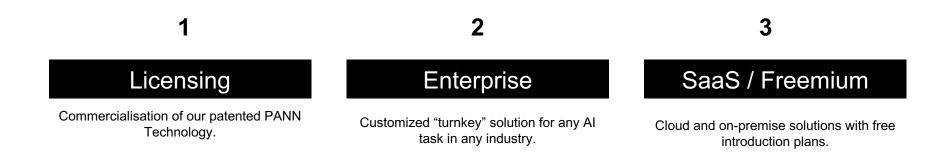


## Applications

Computer Vision	Computer Hearing	Computing	Enterprize
Faces recognition	NLP (Natural Language)	Big Data and patterns	Customized turnkey solutions
Emotions recognition	Sounds recognition	Data processing booster	
Body poses recognition			
Gestures recognition			
Natural objects recognition			
Materials objects recognition			



### **Business Model**





## Traction

#### First contracts and paying customers in predictive analytics. And three more prospects in development pipeline:





### **Intellectual Property**

#### PANN technology is patented in 25+ key jurisdictions.

#### Americas

Including USA, Canada and Mexico.

### Asia Pacific

Including China, Hong Kong, Singapore, Korea, Taiwan.

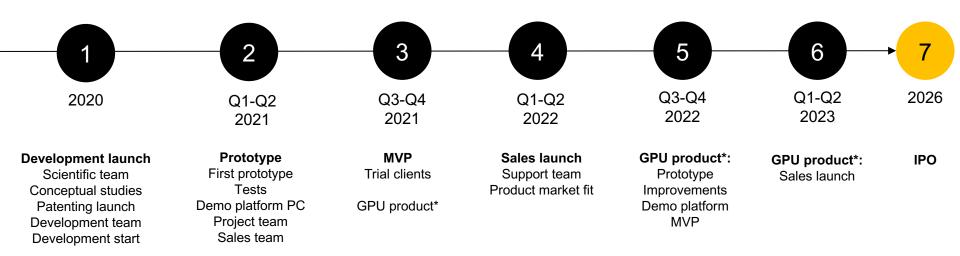
### EMEA

Including 13 main EEU markets and Israel.

More in 2022. Patenting is an ongoing result of research Patenting details and summary at: https://omega-server.ai/science/intellectual-property/



### **Milestones and Goals**



#### \* GPU product

Omega Server on GPU (graphic processing unit). Neural network with expanded computing capacity and increased performance.



## "Seed" Investment Round

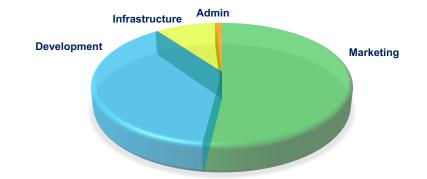
# We are fundraising total of \$3 million to launch our global sales and support.

12% shares stock





## Use of funds



#### Marketing (52%)

- Global sales and marketing team.
- Marketing infrastructure and vendors mix.
- Scaling up sales channels and partnerships.
- Campaigns, touchpoint, marketing materials.

#### Development (38%)

- Development and QA teams.
- Global support team.
- Omega Server continuous improvements and upgrade.
- Omega Server GPU market launch (our blockbuster!).

#### Infrastructure (9%)

- Data storage hardware.
- · Computing infrastructure.
- · Servers GPU.



### Team





**CEO (Co-founder)** Vladimir Proseanic

Master of Science in mechanical engineering, ex-Director of Analytical and Intellectual Property Services at Ideation International, Inc. (US). Author of multiple patents.



#### CSO (Co-founder) Boris Zlotin

Master of Science in Electrical and Mechanical Engineering. 20+ years in design and research, and 38 years as an innovation expert, Boris is a multiple-patent holder and author of numerous books and publications.







MBA lecturer at University of California. IPOed (NASDAQ) his own software company, Unidata Systems. Consulted to senior executives at Bell Labs, Motorola, DuPont, Fiat. Ex-MIT Research Engineer.





CTO Ivan Negreshny

Software engineer, software and project manager for 17+ years in various industries: production, retail chains, trading systems and neuro-tools.





DEEP TECH

### Invest in AI revolution

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