

# Grant Proposal

## Part 1 - Proposal Submission

Name of Project: nCight, Inc: Classification and Verification of Arthroscopic Surgery Images.

Proposal in one sentence: Creation of a prediction algorithm that determines whether an arthroscopic image is classified as a knee or shoulder.

**Description of the project and what problem is it solving:** Independent physicians struggle with maintaining autonomy due to the negative reimbursement pressures from third party payors. For the first time in the history of the United States, the number of employed physicians outnumber independent physicians. Orthopedic surgeons have been able to withstand the consolidating pressures largely due to access to ancillary streams of revenue such as ambulatory surgery centers and owning PT and advanced imaging (e.g. MRI). Even with these additional streams of income the number of surgeons in private practice has declined by over 30% over the last 20 years. Independent physicians drive innovation and represent an important part of the healthcare system. It was independent surgeons that pioneered advances in pain management and anesthesia to make outpatient procedures safe and cost effective, saving the healthcare system 100's of millions of dollars. There is therefore a public interest in keeping physicians independent. By focusing on this group of physicians with a strong entrepreneurial spirit and fierce desire to maintain autonomy we believe this represents an early adopter group. We aim to engage independent Orthopedic Surgeons into the data economy by leveraging the Ocean Protocol to turn data assets in the form of surgical images into tokenized assets that will be provided to medical device data consumers. The orthopedic medical device market is a \$39.5 B industry. Limited access to surgeon use data makes market analysis and servicing of current

products difficult. In comparison, the \$2.6T pharmaceutical industry has access to granular data through companies like Iqvia (\$48B) that assist marketing and decision making, there is no equivalent in the medical device space. This is where our opportunity lies to provide granular, unique data to a specific customer segment from data producers motivated to engage. nCight, Inc utilizing the Ocean protocol will establish a network of orthopedic surgeons and their patients to align incentives of patients, physicians and data consumers creating a marketplace for data assets. nCight, Inc will function as a trusted party through relationships within the orthopedic surgery world to bootstrap the network. We will be creating a business to business marketplace. The initial approach will be to consolidate one side of this market by building our physician network of data assets. Care will be taken to not build something with no buyers so we will also conduct experiments testing our value hypothesis that medical device companies will engage with nCight, Inc if we build a regional network of physicians that demonstrate our ability to scale and engage with a segment of physicians. nCight, Inc will serve as a service intermediary connecting the crypto immature physician network to crypto immature medical device companies. We anticipate as adoption and comfort increases, more participants will manage these data relationships internally.

## **Proposal Goals**

**1. Develop a mobile app UI/UX prototype that shows capabilities of data union for physician contributors and labelers of arthroscopic surgical images.**

**(COMPLETED)**

**2. Engage data scientists to participate in hackathon and competition to develop accurate prediction models for determining which surgical site an arthroscopic image should be classified into.**

We will provide access to a private dataset and incentive data scientists to participate in development of a prediction algorithm. We will be narrowly focused on simply determining if an image should be classified as a knee or shoulder image. This classification capability will serve as a springboard for enabling physicians to utilize

de-identified, HIPPA compliant data and extract value. In the first portion of our project we were able to create a mockup of the surgeon UX to encourage physician participation. In this round of the project we will deploy a private dataset and train an algorithm and attempt to achieve a high accuracy level for determining the surgical site of arthroscopic images.

Grant Deliverables:

- Grant Deliverable 1: Deployment of private compute to data dataset on the Ocean Market Place (test network)
- Grant Deliverable 2: Creation of prediction algorithm, working with Algovera team
- Grant Deliverable 3: Results of data scientist competition to run additional algorithms against dataset (published on Mainnet)

Which category best describes your project?

**Build applications or integrations to Ocean**

**Algorithms will be open source and deployed on Ocean Marketplace on the polygon network.**

Which Fundamental Metric best describes your project?

**Datatoken Contracts**

What is the final product?: Algorithm for classifying images that enables subject matter experts to connect with data scientists for projects that assist with AI training.

**Which one or more of the criteria will your project focus on? Why do you believe your team will do well on those criteria?**

1. **Usage** - we believe healthcare is a data market that is quite immature but there is great need within the field. The price discovery, and privacy associated with the AMM tools and Compute to Data are an attractive entryway into the data economy in a field with significant security concerns and regulations. We anticipate with growth of a physician network the # of assets and total value locked within the ocean protocol should grow as a function of physician referrals.
2. **Viability** - Our team has significant healthcare experience and has the advantage of understanding the market of the users that would be interested in participating in an activity that helps to maintain physician autonomy. We believe we are uniquely situated to execute on the plan as laid out.

How does this project drive value to the “fundamental metric” (listed above) and the overall Ocean ecosystem? What is the expected ROI?

With a total addressable market of 1.4 million arthroscopic cases performed in the United States every year capturing 5% of those cases should result in 70,000 cases. We believe this is ultimately an obtainable goal considering our target group of independent orthopedic surgeons represents nearly 60% of the total orthopedic surgeon pool. We have already piloted and deployed on the ocean marketplace a sample dataset contract.

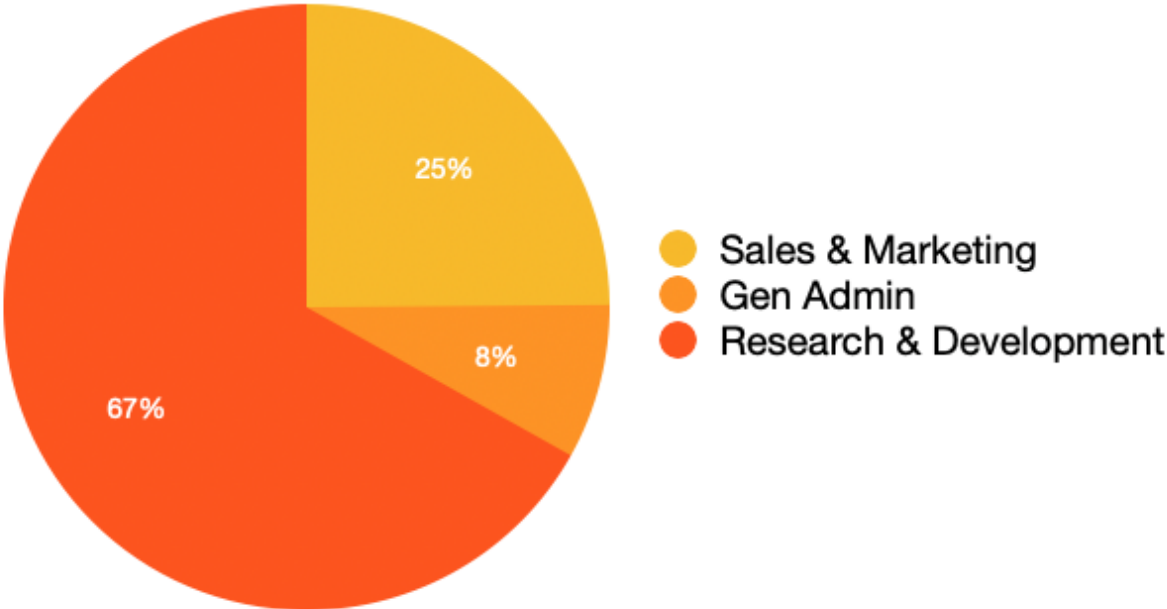
<https://market.oceanprotocol.com/asset/did:op:3af10546654FCe4b42D948aB485D13D9EFB427D7>

FUNDING REQUEST: \$9045

NCIGHT OCEANDAO EXPENSE ROUND 14

Expense	Amount Requested
<b>Research &amp; Development</b>	<b>\$ 6,048</b>
Algovera Algorithm design	\$ 1,750
Data Science Competition	\$ 500
Web app development	\$ 3,798
Dataset Deployment	\$ 1,800
<b>Sales &amp; Marketing</b>	<b>\$ 2,250</b>
SME (Physician) Labeling (3)	\$ 1,500
SME Wallet Creation & Gas Fees (3)	\$ 450
SME Recruiting	\$ 300
<b>General &amp; Administrative</b>	<b>\$ 747</b>
Salary	\$ 747
<b>Total</b>	<b>\$ 9,045</b>

OPEX Categories



Proposal Wallet Address: [0x0cEC1Dbc5Db276dE35808bf717a4491082fDb8d8](https://www.oceandao.org/0x0cEC1Dbc5Db276dE35808bf717a4491082fDb8d8)

Have you previously received an OceanDAO Grant (Y)? Round 11

Team Website (if applicable): [www.ncight.com](http://www.ncight.com)

Twitter Handle (if applicable): N/A

Discord Handle (if applicable): @cryptoaware

Project lead Contact Email: [asexton@ncight.com](mailto:asexton@ncight.com)

Country of Residence: United States

## Part 2 - Team

### Core Team

#### Alonzo Sexton MD

- Role: Founder, CEO
- Relevant Credentials:
  - Orthopedic Surgeon with over 20 years of clinical experience
  - Sports Medicine Specialist
  - Team Physician University of Georgia (2006-2017)
  - Team Physician Georgia State Panthers (2018-2021)
  - Advisory Board Patientory, Inc (Blockchain HIE Company)
  - Youtube: [Alonzo Sexton](#)
  - LinkedIn: <https://www.linkedin.com/in/alonzo-sextonmd/>
- Background/Experience:
  - Blockchain in Healthcare SME: [Blockchain Chat: How to Discuss Blockchain with Your C Suite w/ BBC's own Dr Alonzo Sexton, MD](#)
  - Lecturer on Blockchain (TAG, GA Tech, Becker's)
  - Remote Patient Monitoring Author: [Remote Patient Monitoring Article](#)

#### Michael Dural

- Role: Chief Digital Marketing, Operations
- Relevant Credentials:
  - 25 years of experience in technology, development and marketing
  - Digital marketing strategy and deployment
  - LinkedIn: [linkedin.com/in/michael-dural-70bbb43](https://www.linkedin.com/in/michael-dural-70bbb43)
- Background/Experience:
  - Co-founder, COO blacQube
  - Account Executive, Razorfish
  - Alliance Manager, Interwoven
  - Manager, Accenture
- Key Clients
  - Mercedes-AMG
  - Cigarette Racing Team
  - FedEx
  - Coca-Cola
  - IWC

### **Darrell Philpot**

- Role: Project Manager
- Relevant Credentials:
  - 20 years of experience at data company IQVIA
  - Senior Director, Data Science and Advanced Analytics
  - LinkedIn: [linkedin.com/in/darrell-philpot-8206466](https://www.linkedin.com/in/darrell-philpot-8206466)
- Background/Experience:
  - SVP, Alpha Impact Rx
  - Predictive Modeling
  - Market Research
  - Forecasting
  - Survey Sampling
  - Promotion Modeling

### **David Livingston**

- Role: Head of Sales, Strategic Partnerships
- Relevant Credentials:
  - Vice President, Partnerships, Spectra
  - EVP, Atlanta Blaze
  - President, Atlanta Legends
  - LinkedIn: [linkedin.com/in/w-david-livingston-3325bb99](https://www.linkedin.com/in/w-david-livingston-3325bb99)
- Background/Experience:

- Senior Vice President, IMG
- Director National Corporate Sponsorships, Spectra
- Director of Partnerships, Cleveland Cavaliers
- Brand Manager, Procter & Gamble

## Advisors

### John Butler

John Sibley Butler holds the J. Marion West Chair for Constructive Capitalism in the Graduate School of Business (Department of Management) at the University of Texas - Austin. He is a professor in the Management Department and holds a joint appointment in Organizational Behavior in the College of Liberal Arts, where he holds the Darrell K. Royal Regents Professorship in Ethics and American Society (Sociology). His research is in the areas of Organizational Behavior and Entrepreneurship/New Ventures. His research appears in professional journals and books. He is the Sam Barshop Fellow at The IC2 Institute, an organization dedicated to the creation of new ventures throughout the world.

### Jeff Spence

Jeff Spence has a wealth of experience in the venture, private equity and startup world. He has served roles as both a managing and operating director in a multitude of companies including Source capital and Caedan. He is on the board of directors of Displayit, and PTI Security Systems. He brings operating experience and over 20 years of expertise from the startup world.

### Russell Smith

Founder of RTS Associates, Russell has been CEO for over 20 years. The company is one of the leading telecom suppliers in the Southeast. He is an advisor for several startup companies including Verady, a blockchain tax solution firm. Russell is a member of the Young Presidents Organization, Board of Trustees for Leadership Georgia and a member of the Northeast Georgia Health System Foundation Board of Trustees.

### Jeb Stewart

Jeb Stewart is an entrepreneur and investor. He was founder and chairman of SciHealth Holdings, Inc, a healthcare decision support software and consulting solutions company. He has also been involved in starting and/or building businesses in telecommunications, computer hardware and software, construction, and manufacturing. Jeb has served in leadership positions or governing boards of more than three dozen business and civic organizations. He has directly invested in more than six dozen startup- and early stage- businesses and multiple venture capital funds, serving as an active advisor to many of them.

### Mary Harris

Mary is the President of BioTechnical Communications, Inc. She has 34 years of expertise in business development, corporate strategy, corporate finance and government grants and contracting. She has a PhD in molecular genetics from Cornell University.

### Bjay Pak

Bjay has an extensive 25 year career in law and served as US Attorney for the Northern District of Georgia. He has expertise in securities, corporate law and cryptocurrency.

## Part 3 - Proposal Details

### Project Deliverables - Category:



- Website that details the function of data union (Done)
- Webapp that demonstrates the capabilities of creation of datasets derived from the arthroscopic images. (Mock up completed, but will begin development in conjunction with algorithm project)
- Private dataset deployed and hackathon organized in partnership with Algovera
- Engaging with subject matter expert surgeons to begin work on validating the algorithm for accuracy

## Project Deliverables - Roadmap

- Week 1-2: Obtain 2 data scientists for project
- Week 2-3: Deploy private dataset, Algorithm tuning against dataset
- Week 4: Hackathon concludes
- Week 5: Begin accuracy competition to identify other solutions
- Please include the team's future plans and intentions.
  - Develop algorithm to determine whether image is a knee or a shoulder
  - Develop Web Application
  - Create image datasets on Ocean marketplace
  - Data Bounty for community verifiers after domain expert training
  - Reporting on token value and liquidity of datasets
  - Website development for growth
  - Inclusion of referral link capture on website to monitor growth with a goal of keeping viral coefficient  $>1$ .
  - Add additional classification schemes (Tear: True/False; Implant: True/False)