

**Team Number:**

**School Name:** DATA (Digital Arts & Technology Academy)

**Area of Science:** Earth and Spaces Sciences

**Project Title:** Visualizing Frequencies

## Converting VLA Incoming Information into Accurate Pictures for Further Study.

Currently, we can only gather visual information about the universe around our planet via satellite telescopes, which take an exceptional amount of time, money and general upkeep to maintain, which themselves are inaccurate, hard to use, and cost NASA exorbitant amounts of money and general resources to launch and maintain, which then only have a very short radius of sight. However, we also have a method of gathering a different kind of information about our universe: radio frequencies, using the Very Large Array (VLA). These radio frequencies can be detected from much further away than that of what we can see using telescopes. Using the Trinity supercomputer, as well as the information from the VLA (which has just recently become open-source), we can analyze patterns in the data, and create an algorithm by which the supercomputer can create images using this information, which can then be molded over time to create more accurate information, then analyzed by scientists to quite literally gain a broader perspective on the universe around us.

### Team Members

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### Sponsoring Teacher

- Michele Ortiz

### Project Mentor(s)

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