

# Raytheon

## Raytheon BBN Technologies

Boulat A. Bash, Ph.D.

Jacob Beal, Ph.D.

Daniel Ellard, Ph.D.

**Raytheon BBN Technologies leads a wide range of R&D project that advance the US national interests.**

### Team expertise:

**Boulat Bash:** information theory and coding

**Jacob Beal:** synthetic biology

**Daniel Ellard:** operating and distributed systems

Raytheon BBN Technology has proven record in:

- Synthetic biology
  - SBOL standard
- Large-scale system design and integration
  - GENI
  - Curveball
- Collaborations with university and industry partners

BBN seeks partners who believe in importance of integrated scalable architecture for molecular storage. We would especially welcome wetware and bioengineering experts.

## Scalable Molecular Storage Architecture:

- Requirements for data warehousing in many use cases has met and exceeded exobyte scaling
- Research shows that sequence-controlled polymers (e.g., DNA) offer a possibility of compact, low-power, and inexpensive solutions for storing data at this scale
- However, to our knowledge, current polymer storage demos are limited to 10s of MBs
  - Lack of architecture
- **Raytheon BBN Technologies seeks to rectify this by bridging the gap between hardware, wetware, and software.**

Boulat A. Bash

Scientist

Raytheon BBN Technologies

bbash@bbn.com

(617) 873-3024