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OUR WORK

Our patented and patent-pending technologies can improve screening and contact tracing infrastructure in several important ways:

- **Simple, intuitive, and inclusive user experiences driven on AWS by HIPAA-compliant SMS and VoIP**
- **With multilingual virtual agents at contact center, all calls answered immediately regardless of priority**
- **Rapid, automated triage of user requests with horizontal scalability**
- **Optimal marshaling and allocation of scarce operational resources**
- **Generating and executing optimal response plans, including MPC and continual re-optimization**

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WHEN DISASTER STRIKES, MINUTES MATTER.

Nakamura builds easy-to-use solutions that make 911 and other critical public services more efficient when every second counts. Given the current events related to COVID-19, we have re-configured our 911 solution architecture for risk reduction in emergency room settings and improved functionality of Salesforce-based contact tracing platforms.

LIFE-SAVING DISCOVERIES

Asymptomatic carriers and corrupted tests

Nakamura Hercules comprises HPC systems that leverage contact tracing data to determine if a negative test result is no longer accurate. They also discover asymptomatic COVID-19 carriers, directing them to the appropriate on-site process at clinic / hospital ER where relevant.

SHARING TOMORROW

Optimal distribution & control of resources

Hercules optimizes testing operations to help the community isolate all COVID-19 cases as quickly as possible and executes deep contact tracing analyses on HPC. This stems from our existing probabilistic methodologies for online and optimal emergency response planning.

SOLVING BIG PROBLEMS

Clusters, Covering Sets, and Herd Immunity

With graph-based mathematical techniques, Hercules has the capability to solve sick and well sets in the population while keeping personal data anonymous with advanced cryptography. At the ER, such risk-reducing analytics can help separate suspected and well COVID-19 patients.

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COMPUTING PROBLEMS WE FACE

- **Graph Database Benchmarking**
  Benchmark comparative performance and architectural tradeoffs of cloud-native AWS Neptune and on-prem Neo4j.

- **Implementing Production-Ready HPC Workflows**
  This is in order to expose an endpoint to our cloud-native workloads for low-latency HPCaaS for regional healthcare and municipal clients.

- **Determining Optimal HPC Infrastructure Design**
  Obtain a better understanding of best-practice HPC solution architecture as it relates to our stochastic optimization solutions for discrete dynamical systems. Generally gain more skill in working with HPC platforms directly.

WHAT WE HOPE TO ACCOMPLISH

- **Functional Understanding**
  Competent understanding of the Comet platform, its various workflows, and how they relate to our business objectives.

- **Test/UAT Infrastructure Design**
  Initial design of HPC platform solution architecture for utilizing Comet as part of a test/UAT environment, before deploying workflows into production.

- **Evaluate Accenture DevOps Platform**
  Understand at a high level whether the ADOP can add value to our HPC workflow should Comet be part of the picture. For instance, with respect to automated testing, and/or continuous delivery of triage logic and control laws to our downstream cloud infrastructure.