



# Press Release

For Immediate Release

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## **Azavea Awarded National Science Foundation SBIR Phase IIB Grant for HunchLab™ to Support Geographic Forecasting of Crime Events**

**Philadelphia, PA, December 6, 2010** - [Azavea](#) (formerly Avencia), an award-winning geospatial analysis (GIS) software development company has been awarded a Small Business Innovation Research (SBIR) Phase IIB grant, totaling \$216,000, by the National Science Foundation (NSF) to develop advanced crime risk forecasting capabilities for HunchLab, the firm's web-based geographic crime data analysis and early warning software system. HunchLab provides both advanced crime mapping and automated notification to authorities about changes in the geographic patterns of crime incidents. The system is targeted at the law enforcement market and enables police officers to develop, analyze, and evaluate hunches about geographic patterns in criminal activity in the communities they patrol. The Phase IIB award is being used to add new geographic forecasting features to the software as well as develop enhancements to existing functionality.

In 2006, the NSF awarded Azavea an SBIR Phase I grant totaling \$100,000 for testing technical merit and feasibility of the HunchLab concept. Then, in 2008, the NSF awarded Azavea an SBIR Phase II grant to enable Azavea to further develop the HunchLab technology and prepare it for commercialization. For this Phase IIB development work, Azavea will be collaborating with Dr. Jerry Ratcliffe from Temple University's Department of Criminal Justice, a leading expert in statistical crime analysis. Over the past several years, Dr. Ratcliffe has worked with academic colleagues to develop statistical techniques for detecting what is known as a "near repeat" pattern. Dr. Ratcliffe has discovered that certain types of crime exhibit a "contagion" effect. For instance, a burglary incident will result in an elevated risk that subsequent burglaries will occur within a couple of blocks and weeks following the original event. This elevated risk can be measured and used by law enforcement officials to deploy their resources more effectively. Azavea is building on Dr. Ratcliffe's work to make this forecasting technique available within HunchLab. Two additional crime pattern forecasting techniques, focused on seasonal variations in crime and daily workload forecasts, are also being developed. The Azavea software team is also enhancing the early warning system to support real-time visualization, animation and heat maps.

Although HunchLab is being developed to assist with detection of geographic changes in crime patterns, the underlying technology is relevant for any application in which events display geographic changes in distribution, such as disease occurrence, consumer buying patterns, and real estate sales.



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"We're excited to be working with leading criminologists and geographers to implement cutting-edge risk forecasting research in HunchLab. By providing agencies with tools that do more than simply map the historic frequency of crime incidents at a particular geographic location, we're helping law enforcement agencies to focus their limited resources in the areas where they can best improve public safety," says Robert Cheetham, President and CEO of Azavea.

HunchLab is supported by the Small Business Innovation Research program of the National Science Foundation, Directorate for Engineering, Division of Industrial Innovations and Partnerships, Award Number (IIP-0750507).

This is the sixth time in four years that Azavea has been awarded an SBIR grant. Previous awards were SBIR Phase I and II awards from the National Science Foundation and Phase I awards from the U.S. Department of Education and the U.S. Department of Agriculture.

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### **About Azavea**

[Azavea](http://www.azavea.com) is an award-winning geospatial analysis (GIS) software development firm specializing in the creation of location-based web and mobile solutions, as well as geospatial analysis services to enhance decision-making. Azavea is committed to working on projects with a strong social value component in order to promote the emergence of more [dynamic, vibrant, and sustainable communities](#). Each of Azavea's projects, products and pro bono engagements showcases this commitment. Azavea is a certified [B Corporation](#). For more information, visit <http://www.azavea.com/>.

If you would like more information about Azavea or to schedule an interview with Robert Cheetham, Azavea CEO and President, please contact Abby Fretz at (215) 701 – 7503 or e-mail [afretz@azavea.com](mailto:afretz@azavea.com).

### **About HunchLab**

[HunchLab](http://www.azavea.com/hunchlab) is a web-based geographic crime analysis, early warning and risk forecasting software solution for law enforcement agencies. HunchLab provides advanced spatial statistics and risk forecasting algorithms via an easy-to-use interface allowing agencies to improve public safety through optimal resource allocation across their jurisdictions. For more information, visit <http://www.azavea.com/hunchlab>.

If you would like more information about HunchLab or to schedule a demonstration of the software, please contact Jeremy Heffner at (215) 702 - 7712 or email [jheffner@azavea.com](mailto:jheffner@azavea.com).

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