

LIFE@ANAVATION

It's not just about what you can do, but who you can become.

AnaVation hires professional technologists who are committed to high-level customer service, personal growth, and technical innovation. To work for AnaVation, you must be focused on becoming one of the best in your professional discipline. In order to help you work toward that goal, we will provide you with the tools and education that you need. We will also provide a work environment of mutual respect that fosters cooperation and partnership with our customers and peers. AnaVation hires individuals who are committed to personal and professional improvement and support that through paid training programs. AnaVation and its employees set the benchmark to which others aspire.

A GREAT PLACE FOR GREAT PEOPLE TO DO GREAT WORK

AnaVation strives to maintain a culture that fosters continued growth, at both a personal and professional level, for every "*AnaVator*". A combination of making new friends, building teams, lunch and learns, company-sponsored social gatherings, fun competitions (with prizes!) and various philanthropic projects help create an environment people want to be a part of. Let's face it – we are at work for a large percentage of our day, so we might as well have some fun while we are at it! See what former interns say about working here!

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I originally had no idea what working in this kind of professional environment would be like, so I'm utterly surprised at how many things I learned during my internship. Using software like Jira to track our progress, working with things like AWS and deploying software on it, are things that I had no idea about before coming here. Being able to work in teams also gave me a good idea of what a software development lifecycle is really like, and helped me build communication and leadership skills - **CS Student**

Being an intern at AnaVation was a great experience, as they gave me a real-world problem and let me come up with my own innovative solution, which is something I wouldn't be able to do in the classroom. I was also able to connect different technologies I've been taught in school, as well as learn and use new ones along the way. - CS Student

My experience as an intern with AnaVation exceeded my idea of the perfect internship," remarked, a **CS Student.** "Being able to apply the skills obtained over the past years of university studies and see them in action gave me the motivation I need to finish my education strong, as I was able to understand the connections that textbook problems do not adequately display.





SUMMER INTERN PROJECT SUCCESS STORIES

AnaVation engineers have developed several tools used by the IC to provide non-attribution or tradecraft tools. One site is a Phonebooth site which allows for the adoption and the spoofing of telephone numbers all over the world. When you make a call it temporary leases a designated number for an allotted time. The Intern project team was responsible for TLC and cleanup of the web interface, in addition they had the opportunity to build some additional features and a smartphone application interface.

AnaVation developed a data sharing solution for a customer. In an effort to leverage lessons learned from that project we wanted to split out a branch of the source and re-code and to develop

additional components to add functionality for data fabric capabilities. This included researching development of multiple levels of tiered sharing peered clouds with interconnected tributaries.

AnaVation supports several Case Management and Customer Resource Manager Applications leveraging different variants of CRM products like Sales Force, Sugar/Sweat CRM, and Microsoft Dynamics. The project mission was to develop a working CRM based Case Management system in which we could demonstrate at least 3 functional use cases.

SUMMER 2020 INTERN PROJECTS

AR/VR - Develop a mobile VR WiFi Heatmap App

Leveraging data from an existing WiFi heatmap tool, develop mobile application leveraging IOS and Android VRKits. This application will potentially be used for Law Enforcement or DoD to visualize network spectrum analysis data in a 3D view. The initial app will use a known physical layout and will be used as a training environment.

Cyber – AI Deep Learning - Develop a UBA analysis tool and visualization

User Behavior Analytics (UBA): Once an attacker gains entry into an enterprise, what happens then? Visibility into activity that

does not fit the norm of the legitimate user can close a blind spot in the middle of the attack chain. For instance, think of the attack chain as initial penetration, lateral movement, and then compromise, theft, and exfiltration of sensitive data, the middle links in that attack chain have not been very visible to enterprise security. One approach may be comparing a user's behaviors to a baseline. Comparing present behavior to past behavior allows us some insights but isn't the only way we can use UBA to identify a malicious actor. We can also implement peer analysis, which compares how someone is behaving compared to people with the same duties and responsibilities, and or within the same organizational unit. This can be an indicator that the person is doing something they shouldn't be doing or someone else has taken over their account. Additionally, UBA can be a valuable tool for training in better security practices. Often the largest security gap and creator of cyber vulnerabilities in an organization is personnel not following policy. A win would be If our tool was able to identify those people and mitigate that risk by training them properly.

Content Based Routing - Develop a demonstratable content-based router in one specific domain.

Develop a Routing Domain Specific Language and implement in NiFi similar to Apache Camel message routing. Camel uses a Java based Routing Domain Specific Language (DSL) or an XML Configuration to configure routing and mediation rules which are added to a CamelContext to implement the various Enterprise Integration Patterns (EIP). The Content Based Router from the EIP patterns allows you to route messages to the correct destination based on the contents of the message exchanges.



