



Experiential Learning: How One CAE Program Created and Oversees Investigative Real-World Internships

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Indiana State University - School of Criminology and Security Studies

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Who Am I



- Present Positions
 - Assistant Professor of Cybersecurity at Indiana State University School of Criminology and Security Studies Cybercrime Program
 - Director and Chief Digital Forensics Investigator for Vigo County Prosecutor's Office High Tech Crime Unit (HTCU)
 - Director of Intelligence, Cybercrime, and Criminology Center (IC3) at Indiana State University
 - Faculty Fellow for ISU Office of Admissions
 - CAE POC at Indiana State University
- Education
 - D.Sc. In Information Systems and Communication, Cybersecurity Concentration from Robert Morris University (2017)
 - M.S from Purdue University in Information Assurance and Security (2019)
 - MBA from Robert Morris University (2005)
 - B.A. from Allegheny College (1998)
- Experience
 - 15 years with Department of Defense

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Intelligence, Cybercrime, and Criminology Center (IC3) at Indiana State University

- Four Investigative Internships
 - High Tech Crime Unit (HTCU)
 - Jail Intelligence Unit (JIU)
 - Cold Case Unit (CCU)
 - Human Trafficking and Intel Unit (HTIU) Sponsored by Operation Underground Railroad (O.U.R.)

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Vigo County/ Indiana State University High Tech Crime Unit (HTCU)

- IN 2021, Indiana Lawmakers passed House Enrolled Act 1082 (HEA)
 - HEA 1082 added section 33-39-8-7 to the Indiana Code. This provision allows “[t]he [IPAC to] . . . establish high tech crimes units to assist prosecuting attorneys in investigating, collecting evidence, and prosecuting high tech crimes.”
- The Indiana Prosecuting Attorneys Council (IPAC) released a proposal to Indiana’s 91 prosecuting attorneys to consider the establishment of a high-tech crimes unit (HTCU) in accordance with House Enrolled Act 1082 (2021).

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Vigo County/ Indiana State University High Tech Crime Unit (HTCU)

- In anticipation of the law, Indiana State University's School of Criminology and Security Studies and Vigo County Prosecutor's Office joined forces in January 2021 to form a partnership.
 - Followed suit where University of Notre Dame's Computing & Digital Technologies in St. Joe County, Indiana piloted a few years prior where students interned for the St. Joseph County Cyber Crimes Unit.
 - Started in January 2021 with three students who were sworn investigators for the Vigo County Prosecutor's Office.
- One of 20 counties that submitted a proposal to establish a HTCU
- November 2021, IPAC awarded Indiana State University and Vigo County Prosecutor's office 1 of 10 High Tech Crime Units



Vigo County/ Indiana State University High Tech Crime Unit (HTCU)

- With \$300,000 a year funding for 2022 and another \$300,000 for 2023, we formally expanded our current service area from Vigo County to include seven additional counties in West Central Indiana (all 92 were divided up and serviced by 1 of the 10 HTCUs)
- Renewed for 2024 and 2025
- Our program is setup where the students are not considered to be interns, they are sworn student investigators (paid), allowing the students to work on every investigation in which the Cyber Crimes Unit is involved.
 - This includes but is not limited to homicides, drug offenses, fraud, domestic violence cases, online child exploitation, etc.

2024 Why did Indiana establish HTCUs?

- The use of digital media, digital devices and social media has exploded in the past decade.
- 17 years ago, few could have imagined quite how pervasive digital technology would become in our lives.



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Why did Indiana establish HTCUs?

- No doubt that mobile devices have become part of our lives and have revolutionized the way we do most of our activities.
- As a result, a mobile device is now a huge repository that holds sensitive and personal information about its owner.
- This has, in turn, led to the rise of mobile device forensics

2024 CAE Why did Indiana establish HTCUs?

- Police agencies and prosecuting attorney offices throughout the country are struggling to handle the influx of digital evidence in criminal investigations
- While technology has also produced new crimes such as ransomware, sextortion and virtual theft, the most transformative change to criminal investigations is something the majority of people carry with them 24 hours a day, seven days a week – a mobile device.
- Due to the prevalence of mobile devices, there is now a technology nexus in nearly every crime.
 - In fact, it is estimated that 85% of police investigations involve some sort of digital evidence.

2024 CAE Why did Indiana establish HTCUs?

- Given the pervasiveness and capabilities of technology, one would think that digital evidence is being used in every investigation and prosecution
 - Yet it is not, primarily for two reasons
- First reason is police administrators have been slow to respond to digital evidence and the benefits it can bring to investigations
 - They don't have the money in their budget to fund a digital examiner, equipment, and training and
 - they don't have the manpower to police the streets, so they cannot dedicate personnel to conduct digital examinations or be part of a unit that does so.
 - for those agencies that do have funded and trained digital examiners, they often lose those individuals to the private sector for higher salaries.

2024 CAE Why did Indiana establish HTCUs?

- Even if a case does merit a digital examination, the backlog of cases means that those results likely won't be available for six to eight months
- By itself, law enforcement falls critically short of the skills and resources needed to effectively deal with technology in criminal investigations and prosecutions

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2024 CAE Benefits of HTCUs

- In addition to the benefits to local law enforcement, this program also benefits the students and the community.
- Once students graduate, they typically have multiple years of real-world digital forensics experience along with industry certifications.
- Coupled with their degree, they are highly coveted in the job market.
- Recruiters will visit the Cyber Crimes Unit to meet with our students and try to persuade them to apply to their organizations for jobs
- For the community, student investigators provide manpower and a high level of expertise at minimal cost to taxpayers

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Operation of HTCU

- The Director, although employed by Indiana State University as Professors, is the ideal individual to run the program.
- Indiana State University is not a research school but rather a teaching school so there is not a required amount of time required for research.
- The Director putting in 20+ hours a week in the partnership
 - Since students are limited on hours, the Director is also on call 24/7 for investigative analysis.
- The HTCU Director has full responsibility for running the unit.
 - This includes, but is not limited to, investigative analysis, budgeting, teaching, running training courses, personnel selection and scheduling, and all day- to-day operations

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Operation of HTCU

- HTCU student investigators can comprise a wide variety of majors but currently student investigators are all Cybercriminology and Security Studies Cybercrime majors within Indiana State University's School of Criminology and Security Studies.
- We feel that this partnership, along with the CSS curriculum, provides an ideal model for an effective partnership between law enforcement and academia

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Operation of HTCU

- One requirement for acceptance into the program, all potential student investigators must take Computer Forensics and Mobile Forensics.
- These two courses provide them the initial training they need to be successful in the program. They must also maintain a 3.5 GPA
- These courses provide a valuable foundation for the work that students will engage in as investigators in the Cyber Crimes Unit.
 - Students learn digital forensics software as part of their coursework including Magnet Forensics Axiom and Cellebrite Physical Analyzer

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2024 CAE Operation of HTCU

- The HTCU is currently housed on the campus of Indiana State University in Holmstedt Hall, which is the same building where the School of Criminology and Security Studies is located.
 - This allows for a close working relationship with both law enforcement personnel and academic faculty.
- All space is secured through electronic locks, is alarmed, and is under video surveillance.
- As part of this, Indiana State University configured a secure Network for use only by the HTCU

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2024 CAE Success leads to New Opportunities

- Success of HTCUC led to three new investigative internships
 - Jail Intelligence Unit (JIU)
 - Cold Case Unit (CCU)
 - Human Trafficking and Intel Unit (HTIU) (sponsored by Operation Underground Railroad)

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Jail Intelligence Unit

- Jail Intelligence Unit (JIU)
 - The JIU students work with Detectives in local law enforcement to listen to jail calls and video calls to gain intel on cases they are working. The students then report back to the Detectives on significant findings.

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Cold Case Unit

- Cold Case Unit (CCU)
 - The CCU investigators are working on an actual cold case from a local law enforcement agency to investigate and assist in solving an unsolved crime. These students are sworn-in investigators through the Prosecutor's Office.

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2024 CAE Human Trafficking and Intel Unit

- Human Trafficking and Intel Unit (HTIU) sponsored by O.U.R.
 - The HTIU are investigating and searching for intel for potential human trafficking suspects and victims in coordination with local law enforcement and Operation Underground Railroad (O.U.R.), who specialize in human trafficking.

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2024 CAE Statistics

- HTCUC serves over 25 law enforcement agencies and 8 counties.
 - 2022 – 124 cases – 167 evidence – Average Close Rate – 82 Days
 - 2023 – 281 Cases – 480 evidence – Average Close Rate – 64 Days
 - 2024 (through March 11) – 64 cases – 110 Evidence – Average Close Rate – 24 Days – 8.7 TB extracted
- HTCUC started with 3 investigators, currently employs 5, graduated 6 (including 1 grad assistant), and increasing to 9 new in Fall 2024 including 1 Grad Assistant
- JIU started with 4 and now employs 12 students
- CCU started with 2 and now employs 4
- HTIU started Spring 2024 and employs 9

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Questions?

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