
Igor Santos

CURRICULUM VITAE

Last update: April 16, 2019

Personal Data

Name Igor Santos
Date of Birth May 13, 1985
Place of Birth Barakaldo, Spain
Citizenship Spanish

Contact Information

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University of Deusto
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Current Position

January 2018 – present Head of the CyberSecurity area
DeustoTech–Industry unit, DeustoTech, University of Deusto, Spain
January 2015 – present Researcher & Project Manager
DeustoTech, University of Deusto, Spain
October 2011 – present Assistant Professor
Faculty of Engineering, University of Deusto, Spain

Past Positions

May 2013 – December 2014 Head Researcher & Director
DT - Computing Research Unit
DeustoTech, University of Deusto, Spain
January 2012 – April 2013 Researcher & Project Manager
DeustoTech, University of Deusto, Spain
October 2009 – September 2011 Adjunct Professor
Faculty of Engineering, University of Deusto, Spain
October 2007 – December 2011 Research Assistant
DeustoTech, University of Deusto, Spain

Research Visits

July 2016, 12th – August 2016 Visiting Research Professor
Research in Web Tracking and Security
Carnegie Mellon University (CMU), PA, USA

Awards and Honors

2014 – Best Paper Award – ENIAC’14 São Carlos, Brazil.
2014 – ICT Security Research Award for the project NEGOBOT- “Red Seguridad” magazine.
2013 – Korea Eureka Day Award for the Most Innovative Project Proposal – Eureka.
2010 – 2nd Prize Santander-UD Research Award – Banco Santander.
2009 – Student Travel Grant Award – ICROS-SICE International Joint Conference, Fukuoka, Japan.

Education

- **Ph.D. Degree in Computer Science**

University of Deusto, Spain – October 27, 2011

Dissertation Title: “New Approaches for Malware Detection based on Information Retrieval”

Advisor: Prof. Pablo G. Bringas

- **M.Sc Degree in System Security**

University of Deusto, Spain – June 2011

Final Project: “Contributions to Malware Detection”

Advisor: Prof. Pablo G. Bringas

Grade: 10/10

- **Computer Engineering Degree (equivalent to M.Sc)**

University of Deusto, Spain – 2007.

Final Project: “IMUSH: A Secure P2P Music Streaming Service”.

Grade: “Notable” (equivalent to 8/10)

Research Grants

[G.65] VESSEDIA: VERIFICATION ENGINEERING OF SAFETY AND SECURITY CRITICAL INDUSTRIAL APPLICATIONS. Funded by: H2020. 2016-DS-01 Ref: N/A. PI (University of Deusto): **Igor Santos** Budget (University of Deusto): 352,125 Euros

[G.64] SOCIAL SPAM: SEGUIMIENTO Y FILTRADO DE SPAM PERSONALIZADO EN MEDIOS SOCIALES MEDIANTE MODELOS DE DIFUSIÓN Y ANÁLISIS DE CONTENIDO. Funded by: Gobierno Vasco Research Ref: N/A. PI: **Igor Santos** Budget: 48,300 Euros

- [G.63] TD - CISIS, SOCO-ICEUTE. Funded by: Eusko jaurlaritza - Gobierno Vasco. Ref: RC-2014-1-1-138. PI: **Igor Santos** Budget: 29,250 Euros
- [G.62] VEMAS: SISTEMA INSTALADO “EN LA NUBE” PARA LA VERIFICACIÓN FORMAL DEL SOFTWARE Y LA MEDIDA DE SU CALIDAD, DESDE LOS COMPILADORES E INTÉRPRETES QUE EJECUTAN EL CÓDIGO HASTA LAS APLICACIONES. Funded by: Consultoría Tecnológica para el comercio, SL (CONSULTEC), Avangroup Bussiness Solutions S.L. Research Contract. Ref: N/A. PI: Borja Sanz Urquijo. Budget: 44,161 Euros
- [G.61] ACSAS – ANÁLISIS DE CAMPAÑAS Y SENSIBILIDAD A LA AMBIGÜEDAD LINGÜÍSTICA PARA LA MEJORA DEL FILTRADO DE SPAM. Funded by: AVANGROUP BUSINESS SOLUTIONS S.L. Research Contract. Ref: N/A. PI: **Igor Santos**. Budget: 8,000 Euros
- [G.60] APPSEYE. HERRAMIENTA DE MONITORIZACIÓN Y ANÁLISIS DE MERCADOS DE APLICACIONES PARA DISPOSITIVOS MÓVILES. Funded by: Ministerio de Economía y Competitividad. Ref: N/A. PI: Pablo García Bringas. Budget: 74,278 Euros
- [G.59] COLLABORATION IN FP7-SOURCE PROJECT. Funded by: Tecnalía. Research Contract Ref: N/A. PI: **Igor Santos** Budget: 9,000 Euros
- [G.58] FIPS: FUTURE INTELLIGENT PRODUCTION SYSTEM. Funded by: ONR, US Navy. Ref: N/A. PI: **Igor Santos** Budget: 137,078 Euros
- [G.57] GREENAPPCode: EFICIENCIA ENERGÉTICA EN EL DESARROLLO DE SOFTWARE. Funded by: Consultora Tecnológica para el Comercio (Consultec). Research Contract. Ref: N/A. PI: Pablo García Bringas Budget: 57,528 Euros
- [G.56] H2-HLA, HERRAMIENTA PARA EL TIPADO DE ALTA RESOLUCIÓN Y DE ALTA CAPACIDAD DE ANTÍGENOS HLA. Funded by: Ministerio de Economía y Competitividad. Research Contract. Ref: N/A. PI: **Igor Santos**. Budget: 176,689 Euros
- [G.55] HACKOBOT. Funded by: Telefónica Digital S.L. Research Contract. Ref: N/A. PI: **Igor Santos**. Budget: 15,000 Euros
- [G.54] HAIS 2015. Funded by: Eusko jaurlaritza - Gobierno Vasco. Ref: N/A. PI: **Igor Santos** Budget: 30,000 Euros
- [G.53] NEWCALIP: DISEÑO Y DESARROLLO DE UNA NUEVA GENERACIÓN DE MORDAZAS DE FRENO PARA EL SECTOR EÓLICO CON MAQUINABILIDAD ÓPTIMA. Funded by: Fundaciones Garbi, S.A. Research Contract. Ref: N/A. PI: Iker Pastor López. Budget: 20,000 Euros
- [G.52] NOTT: DISEÑO Y DESARROLLO DE NUEVAS CARCASAS DE REDUCTORA PARA EL SECTOR DEL FERROCARRIL LIBRES DE TENSIONES RESIDUALES SIN NECESIDAD DE APLICAR TRATAMIENTOS TÉRMICOS. Funded by: Fundaciones Garbi, S.A. Research Contract. Ref: N/A. PI: Iker Pastor López. Budget: 5,000 Euros
- [G.51] PARKGLE: SISTEMA ONLINE Y AUTOMÁTICO DE BÚSQUEDA DE APARCAMIENTO LIBRE EN LA CALLE. Funded by: SERIKAT S.L. Research Contract. Ref: N/A. PI: Sergio Huerta Lara. Budget: 16,000 Euros
- [G.50] PILOTO DE AUDITORÍA DE ESPACIOS PROMOCIONALES PARA EROSKI. Funded by: LANIT SOLUCIONES TECNOLÓGICAS S.L. Research Contract. Ref: N/A. PI: Borja Sanz. Budget: 5,000 Euros

- [G.49] PRINT3: NUEVA PLATAFORMA PARA MONITORIZACIÓN Y CONTROL PREDICTIVO INTELIGENTE EN LA INDUSTRIA. Funded by: AVANGROUP BUSINESS SOLUTION S.L., Fundiciones Garbi S.A, Gerdau Aceros Especiales Europa S.L. Research Contract. Ref: N/A. PI: Javier Nieves. Budget: 175,000 Euros
- [G.48] PRINT2: PLATAFORMA PARA LA MONITORIZACIÓN Y CONTROL PREDICTIVO INTELIGENTE EN LA INDUSTRIA. Funded by: AVANGROUP BUSINESS SOLUTION S.L., Fundiciones Garbi S.A., Gerdau Aceros Especiales Europa S.L. Research Contract. Ref: N/A. PI: **Igor Santos** Budget: 62,000 Euros
- [G.47] PROGENIKA 2014. Funded by: Progenika GRIFOLS S.A. Research Contract. Ref: N/A. PI: **Igor Santos Grueiro**. Budget: 24,000 Euros
- [G.46] RETTO-PLATFORM. Funded by: Ministerio de Economía y Competitividad. Programa INNPACTO 2012. Ref: N/A. PI: Pablo García Bringas. Budget: 172,715 Euros
- [G.45] SARA. SISTEMA AVANZADO DE RESGUARDO CONTRA AMENAZAS ONLINE. Funded by: Ministerio de Economía y Competitividad. Programa INNPACTO 2012. Ref: N/A. PI: Pablo García Bringas. Budget: 17,215 Euros
- [G.44] OPENDASH: DASHBOARD Y BUSINESS INTELLIGENCE (BI) UTILIZANDO OPENDATA. Funded by: Fidelnet Comunicación S.L., ZYLLK.NET S.L., PROSPEKTIKER, S.A. ,CODESYNTAX S.L. Research Contract. Ref: N/A. PI: Diego López de Ipiña. Budget: 20,000 Euros
- [G.43] CENIT NEOGENIUS PROTEOMIKA SL TRAMO A. Funded by: Ministerio de Industria. CDTI 2012. Research Contract. Ref: N/A. PI: Pablo García Bringas. Budget: 65,875 Euros
- [G.42] NEOBIO. NUEVOS PRODUCTOS PARA LA SALUD REPRODUCTIVA Y PRENATAL. Funded by: Eusko jaurlaritza - Gobierno Vasco. Programa ETORGAI 2012. Ref: ER-2012/00015. PI: Pablo García Bringas. Budget: 109,000 Euros
- [G.41] PRINT. NUEVA PLATAFORMA PARA MONITORIZACIÓN Y CONTROL PREDICTIVO INTELIGENTE EN LA INDUSTRIA. Funded by: Eusko Jaurlaritza - Gobierno Vasco. Programa ETORGAI 2012. Ref: ER-2012/00028. PI: Pablo García Bringas. Budget: 40,000 Euros
- [G.40] PROMEC. NUEVAS TÉCNICAS DE PREDICCIÓN DE PROPIEDADES MECÁNICAS EN MATERIALES REFORZADOS CON NANOPARTÍCULAS. Funded by: Diputación Foral de Vizcaya. Centros de Excelencia 2012. Ref: 6/12/TK/2012/00012. PI: Pablo García Bringas. Budget: 150,682 Euros
- [G.39] DICOMA. DISASTER CONTROL MANAGEMENT. Funded by: ITEA2 Program and Ministry of Industry of Spain. Ref: 201100050147418. PI: Pablo García Bringas. Budget: 13,125 Euros
- [G.38] PROGENIKA1. PROYECTO DE EXPERIMENTACIÓN CON INFORMACIÓN GENÉTICA PARA SECUENCIACIÓN HUMANA. Funded by: PROGENIKA S.A. Research Contract. Ref: N/A. PI: Pablo García Bringas. Budget: 120,600 Euros
- [G.37] PROGENIKA2. CLASIFICACIÓN DE INDIVIDUOS AFINES A CÁNCER DE PULMÓN.. Funded by: PROGENIKA S.A. Research Contract. Ref: N/A. PI: Pablo García Bringas. Budget: 34,000 Euros
- [G.36] IPRO: INTELLIGENT FOUNDRY BUSINESS PROCESS. Funded by: Eurostars. Ref: N/A. PI: Pablo García Bringas. Budget: 12,000 Euros

- [G.35] MARSOL. MODELOS DE PROPAGACIÓN DE MALWARE A TRAVÉS DE REDES SOCIALES ON-LINE. Funded by: Ministerio de Ciencia e Innovación. PLAN NACIONAL DE I+D 2011 . Ref: TIN2011-29709-C02-02. PI: Pablo García Bringas. Budget: 12,705 Euros
- [G.34] LIPOUNIVERSAL. PLATAFORMA INTEGRAL PARA EL DIAGNÓSTICO UNIVERSAL DE LA HIPERCOLESTEROLEMIA FAMILIAR. Funded by: Ministerio de Economía y Competitividad. Programa INNPACTO 2011. Ref: 201460000027639. PI: Pablo García Bringas. Budget: 391,124 Euros
- [G.33] MANAFUN. DESARROLLO DE NUEVOS MATERIALES DE FUNDICIÓN DE ALTAS PRESTACIONES REFORZADOS CON NANOPARTÍCULAS.. Funded by: Bizkaiko Foru Aldundia - Diputación Foral de Bizkaia. Programa Centros de Excelencia 2011. Ref: 6-12-TK-2011-01. PI: Pablo García Bringas. Budget: 36,075 Euros
- [G.32] HANTURATECH. NUEVAS TECNOLOGÍAS PARA LA IDENTIFICACIÓN Y VALIDACIÓN DE CANDIDATOS TERAPÉUTICOS EN INFLAMACIÓN . Funded by: Eusko Jaurlaritza - Gobierno Vasco. Programa ETORGAI 2011. Ref: ER-2011/00015. PI: Pablo García Bringas. Budget: 104,000 Euros
- [G.31] GNOSS. DESARROLLO DE ALGORITMOS DE INTELIGENCIA ARTIFICIAL APLICADOS A LA AGREGACIÓN, BÚSQUEDA FACETADA Y RAZONAMIENTO PARA GNOSS.COM. Funded by: Ministerio de Industria. CDTI. Ref: 200900005003309. PI: Pablo García Bringas Budget: 48,000 Euros
- [G.30] DEUSTO FOR KNOWLEDGE - D4K, GRUPO DE INVESTIGACIÓN RECONOCIDO POR EL SISTEMA UNIVERSITARIO VASCO. Funded by: Eusko Jaurlaritza - Gobierno Vasco. Departamento de Universidades e Investigación, 2010. Centros de Conocimiento. Ref: IT-551-10 . PI: Pablo García Bringas Budget: 119,067 Euros
- [G.29] METALCLOUD: ORGANIZACIÓN COLECTIVA DE CONOCIMIENTO TÉCNICO PARA LAS EMPRESAS DEL SECTOR DE FUNDICIÓN. Funded by: Bizkaiko Foru Aldundia - Diputación Foral de Bizkaia, Programa Bizkaiberri, Centros de Excelencia, 2010. Ref: 6-12-TK-2010-0011. PI: Pablo García Bringas. Budget: 203274 Euros
- [G.28] SAREAK: SARE-SOZIALETAN ERREPUTAZIOA ETA AURRISKUAK KUDEATZEN, SISTEMA INTELIGENTE DE GESTIÓN DE SEGURIDAD. Funded by: Eusko Jaurlaritza - Gobierno Vasco. Programa Saiotek 2010. Ref: S-PE10FD04. PI: Pablo García Bringas. Budget: 85,322 Euros
- [G.27] GUARANTEE II: GUARDIAN ANGEL FOR EXTENDED HOME ENVIRONMENT [PART II]. Funded by: ITEA2. Ref: TSI-020400-2010-83. PI: Pablo García Bringas. Budget: 19,394 Euros
- [G.26] GUARANTEE I : GUARDIAN ANGEL FOR EXTENDED HOME ENVIRONMENT [PART I]. Funded by: ITEA2. Ref: TSI-020400-2009-110. PI: Pablo García Bringas. Budget: 27,607 Euros
- [G.25] OGRC: NUEVAS SOLUCIONES OGRC PARA EL CUMPLIMIENTO DE POLÍTICAS Y SEGURIDAD DIGITAL. Funded by: Ministerio de Ciencia e Innovación. Programa INNPACTO 2010. Ref: IPT-430000-2010-043. PI: Pablo García Bringasz. Budget: 158,608 Euros
- [G.24] FUTURE INTERNET. A FUTURE INTERNET PROGRAMME. Funded by: Eusko Jaurlaritza - Gobierno Vasco. Programa ETORTEK 2010. Ref: IE11-316. PI: Diego López de Ipiña. Budget: 142,359 Euros

- [G.23] COMALTO. DESARROLLO DE MATERIALES POLIMÉRICOS REFORZADOS CON FIBRAS DE BASALTO PARA APLICACIONES ESTRUCTURALES. Funded by: Bizkaiko Foru Aldundia - Diputación Foral de Bizkaia. Programa Centros de Excelencia 2011. Ref: 6-12-TK-2011-026. PI: Pablo García Bringas Budget: 36,375 Euros
- [G.22] BRAINWAVE. SISTEMA DE SUPERCOMPUTACIÓN CON LA TECNOLOGÍA GPGPU. Funded by: Bizkaiko Foru Aldundia - Diputación Foral de Bizkaia. Programa Centros de Excelencia 2011. Ref: 6-12-TK-2011-09. PI: Pablo García Bringas. Budget: 220,201 Euros
- [G.21] CONAN. ANÁLISIS DE NANO-AGREGADOS CB (CARBON-BLACK). Funded by: Bizkaiko Foru Aldundia - Diputación Foral de Bizkaia, Programa Bizkaiberri, Centros de Excelencia, 2010. Ref: NEG.86/11 . PI: PI: Pablo García Bringas Budget: 40,000 Euros
- [G.20] NEMESIS. MINERÍA DE DATOS EFICIENTE SOBRE UN SISTEMA DE SUPERCOMPUTACIÓN. Funded by: Eusko Jaurlaritza - Gobierno Vasco. Programa Gaitek 2010. Ref: IG-2012/00365. PI: Pablo García Bringas. Budget: 10,322 Euros
- [G.19] BRANKA4U. EVOLUCIÓN DE LOS SERVICIOS BANCARIOS HACIA EL FUTURO. Funded by: Eusko jaurlaritza - Gobierno Vasco. Programa ETORGAI 2010. Ref: N/A. PI: Pablo García Bringas. Budget: 86,501 Euros
- [G.18] BRANKA: FACTORIZACIÓN DE LA INDUSTRIA DEL SOFTWARE. TRAMO B. Funded by: Eusko Jaurlaritza - Gobierno Vasco. Programa ETORGAI 2010. Ref: N/A. PI: Pablo García Bringas. Budget: 19,166 Euros
- [G.17] BRANKA: FACTORIZACIÓN DE LA INDUSTRIA DEL SOFTWARE. TRAMO A. Funded by: Eusko Jaurlaritza - Gobierno Vasco. Programa ETORGAI 2010. Ref: N/A. PI: Pablo García Bringas. Budget: 40,000 Euros
- [G.16] TQC2: CONTROL PREDICTIVO EN LÍNEA DE CARACTERÍSTICAS EN PIEZAS DE ALUMINIO. Funded by: Azterlan Centro Metalúrgico de Investigación. Research Contract. Ref: N/A. PI: Pablo García Bringas. Budget: 30,000 Euros
- [G.15] TQC1: MINIMIZACIÓN DE LA DEFECTOLOGÍA MEDIANTE LA INTEGRACIÓN DE HERRAMIENTAS DE PREDICCIÓN DE COMPORTAMIENTO. Funded by: Azterlan. Research Contract. Ref: N/A. PI: Pablo García Bringas. Budget: 36,000 Euros
- [G.14] POLIFEMO: DETECCIÓN Y ANÁLISIS DE DEFECTOS SUPERFICIALES EN FUNDICIÓN GRAFÍTICO ESFEROIDAL. Funded by: Ministerio de Ciencia e Innovación. PLAN NACIONAL DE I+D. Ref: CIT-020000-2009-008. PI: Pablo García Bringas. Budget: 108,364 Euros
- [G.13] SIRIUS, FILTRADO DE CONTENIDOS PARA LA PROTECCIÓN DE LA INFANCIA. Funded by: Eusko Jaurlaritza - Gobierno Vasco. Programa GAITEK 2009. Ref: IG-2009/00457. PI: **Igor Santos** Budget: 47,625 Euros
- [G.12] CLOMA: ANÁLISIS Y DETECCIÓN DE MALWARE EN CLOUD COMPUTING. Funded by: Eusko Jaurlaritza - Gobierno Vasco. Programa Euskadi09+ 2009. Ref: UE09+/77 . PI: **Igor Santos** Budget: 45,725 Euros
- [G.11] NEGOBOT: ANÁLISIS CONVERSACIONAL PARA PROTECCIÓN DE LA INFANCIA EN REDES SOCIALES. Funded by: Eusko Jaurlaritza - Gobierno Vasco. Programa Euskadi09+ 2009. Ref: UE09+/100. PI: Pablo García Bringas. Budget: 67,018 Euros

- [G.10] ANÁLISIS DE DEFECTOS SUPERFICIALES EN PIEZAS DE FUNDICIÓN GE. DESARROLLO DE VISIÓN ARTIFICIAL ORIENTADA A VARIABLES DE SALIDA EN EL SISTEMA DE GESTIÓN INTEGRAL DEL PROCESO DE TRANSFORMACIÓN METÁLICA. Funded by: Bizkaiko Foru Aldundia - Diputación Foral de Bizkaia, Programa Ekinberri 2009. Ref: N/A. PI: Pablo García Bringas. Budget: 107,072 Euros
- [G.9] FFBIC: FUTURE FOUNDRY BUSINESS INTELLIGENCE CENTRE. Funded by: Ministerio de Industria. Plan Avanza 2009. Ref: N/A. PI: Pablo García Bringas: 1,013,000 Euros
- [G.8] TRUSTED BANKING: SECURE, TRUST AND RESILIENCE PLATFORM FOR BANKING. Funded by: Ministerio de Industria. Plan Avanza 2008. Proyecto Tractor. Ref: N/A. PI: Pablo García Bringas. Budget: 40,000 Euros
- [G.7] SECADMON: PROVISIÓN DE SERVICIOS ELECTRÓNICOS SEGUROS EN ADMINISTRACIÓN ELECTRÓNICA. Funded by: Eusko Jaurlaritza - Gobierno Vasco. Programa Innotek 2008. Ref: IT-2008/00332. PI: Pablo García Bringas. Budget: 64,692 Euros
- [G.6] DESARROLLO DEL LABORATORIO S3LAB DFB - LABORATORY FOR SMARTNESS, SEMANTICS AND SECURITY, COMO CENTRO DE EXCELENCIA EN I+D+I.. Funded by: Bizkaiko Foru Aldundia - Diputación Foral de Bizkaia 2008. Ref: N/A . PI: Pablo García Bringas Budget: 560,000 Euros
- [G.5] DESARROLLO DEL LABORATORIO S3LAB PLAN AVANZA - LABORATORY FOR SMARTNESS, SEMANTICS AND SECURITY, COMO CENTRO DE CONTENIDOS EXPERIMENTALES. Funded by: Ministerio de Industria. Plan Avanza 2007. Centros de Conocimiento. Ref: N/A . PI: Pablo García Bringas Budget: 1,000,000 Euros
- [G.4] ESIDE-METALCOMPRESSION: MODELO DE ANÁLISIS DE PARÁMETROS DE FUNDICIÓN ESFEROIDAL BASADO EN TÉCNICAS DE COMPRESIÓN BAYESIANA. Funded by: Bizkaiko Foru Aldundia - Diputación Foral de Bizkaia, Programa Ekinberri 2008. Ref: N/A . PI: Pablo García Bringas Budget: 60,184 Euros
- [G.3] ESIDE-METALCOMPRESSION: MODELO DE ANÁLISIS DE PARÁMETROS DE FUNDICIÓN ESFEROIDAL BASADO EN TÉCNICAS DE COMPRESIÓN BAYESIANA. Funded by: Bizkaiko Foru Aldundia - Diputación Foral de Bizkaia, Programa Ekinberri 2008. Ref: N/A . PI: Pablo García Bringas Budget: 60,184 Euros
- [G.2] CENIT SEGUR@: SEGURIDAD Y CONFIANZA EN LA SOCIEDAD DE LA INFORMACIÓN, TRAMO A. Funded by: Ministerio de Industria. CDTI. Programa Cenit 2007. Ref: N/A. PI: Pablo García Bringas. Budget: 550,000 Euros
- [G.1] CENIT SEGUR@: SEGURIDAD Y CONFIANZA EN LA SOCIEDAD DE LA INFORMACIÓN, TRAMO B. Funded by: Ministerio de Industria. CDTI. Programa Cenit 2007. Ref: N/A. PI: Pablo García Bringas. Budget: 138,659 Euros

Current PhD Students

- Oscar Llorente-Vazquez
Started in March 2017
Area: vulnerability analysis

- Irene Díez-Franco
Started in March 2015
Area: operating system security

Former PhD Students

- Iskander Sanchez-Rola, 2014-2019
(co-advised along with Prof. Davide Balzarotti, Institute Eurecom)
Now, Principal Investigator at Symantec Research Labs
- Iván García Ferreira, 2012-2015
(co-advised along with Prof. Pablo G. Bringas, University of Deusto)
Now, General CyberSecurity Director at Bankia
- Xabier Ugarte-Pedrero, 2011-2015
(co-advised with Prof. Pablo G. Bringas, University of Deusto)
Now, Researcher at CISCO Security Intelligence and Research group
- Jorge de-la-Peña-Sordo, 2011-2014
(co-advised with Prof. Pablo G. Bringas, University of Deusto)
Now, at GISTEK Insurance Solutions
- Aitor Santamaría-Ibirika, 2011-2014
(co-advised with Prof. Pablo G. Bringas, University of Deusto)
Now, AI Software Engineer at Amazon
- Félix Brezo 2012- 2014
(co-advised with Prof. Pablo G. Bringas, University of Deusto)
Now, Transparency Engineer at Network Tokenization at Telefónica
- Iker Pastor-López 2011- 2013
(co-advised with Prof. Pablo G. Bringas, University of Deusto)
Now, Research Associate at Deusto Institute of Technnology

PhD Jury Membership

- Enaitz Ezpeleta – Mondragón University, Spain, 2016
- Borja Sanz Urquijo – University of Deusto, Spain, 2012

Publications

Journal Papers

- [J.24] I. García-Ferreira, C. Laorden, *I. Santos*, P.G. Bringas. *A survey on static analysis and model checking*. Logic Journal of IGPL (Special Issue CISIS 2014). ISSN (online): 1368-9894, ISSN (print) 1367-0751. IF: 0.461 (JCR 2014) - 12/21 in LOGIC - Q3 *Accepted for publication*
- [J.23] I. Sanchez-Rola, X. Ugarte Pedrero, **I. Santos**, P.G. Bringas. *The Web is Watching You: A Comprehensive Review of Web Tracking Techniques and Countermeasures*. Logic Journal of IGPL (Special Issue CISIS 2015). ISSN (online): 1368-9894, ISSN (print) 1367-0751. IF: 0.461 (JCR 2014) - 12/21 in LOGIC - Q3 *Accepted for publication*
- [J.22] J. de-la-Peña-Sordo, I. Pastor-López, X. Ugarte-Pedrero, **I Santos**, P.G. Bringas. *Anomaly-based user comments detection in social news websites using troll user comments as normality representation*. Logic Journal of IGPL (Special Issue CISIS 2014). ISSN (online): 1368-9894, ISSN (print) 1367-0751. IF: 0.461 (JCR 2014) - 12/21 in LOGIC - Q3 *Accepted for publication*
- [J.21] T.A. Almeida, T.P. Silva, **I. Santos**, J.M. Gomez-Hidalgo. *Text Normalization and Semantic Indexing to Enhance Instant Messaging*. Knowledge-Based Systems vol 108, pp. 25-32. 2016. ISSN (online): 1368-9894, ISSN (print) 1367-0751. DOI: 10.1016/j.knosys.2016.05.001 IF (JCR 2014): 2.947 - 16/123 in COMPUTER SCIENCE, ARTIFICIAL INTELLIGENCE - Q1
- [J.20] P. Galán-García, J. Gaviria de la Puerta, C. Laorden, **I. Santos**, P.G. Bringas *Supervised machine learning for the detection of troll profiles in twitter social network: application to a real case of cyberbullying*. Logic Journal of IGPL (2015) 24 (1): pp. 42-53. ISSN (online): 1368-9894, ISSN (print) 1367-0751. IF: 0.461 (JCR 2014) - 12/21 in LOGIC - Q3
- [J.19] C. Laorden, P. Galán-García, **I. Santos**, B. Sanz, J. Nieves, P.G. Bringas, Jose María Gómez-Hidalgo *Negobot: Detecting paedophile activity with a conversational agent based on game theorys*. Logic Journal of IGPL (2015) 23 (1): pp. 17-30. ISSN (online): 1368-9894, ISSN (print) 1367-0751. IF: 0.461 (JCR 2014) - 12/21 in LOGIC - Q3
- [J.18] C. Laorden, X. Ugarte-Pedrero, **I. Santos**, B. Sanz, J. Nieves, P.G. Bringas *Study on the effectiveness of anomaly detection for spam filtering*. Information Sciences, Volume 277, 1 September 2014, pp 421–444, ISSN: 0020-0255, IF: 3,643 (JCR) - 6/132 in COMPUTER SCIENCE, INFORMATION SYSTEMS - Q1
- [J.17] A. Santamaría-Ibirika, X. Cantero, M. Salazar, J. Devesa, **I. Santos**, S. Huerta, P.G. Bringas *Procedural approach to volumetric terrain generation*. The Visual Computer September 2014, Volume 30, Issue 9, pp 997-1007, ISSN: 0178-2789, IF: 1.07 (JCR) - 46/105 in COMPUTER SCIENCE, SOFTWARE ENGINEERING - Q2
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- [C.19] X. Ugarte-Pedrero, **I. Santos**, P.G. Bringas. *Structural Feature based Anomaly Detection for Packed Executable Identification*. Proceedings of the 4th International Conference on Computational Intelligence in Security for Information Systems (CISIS). Torremolinos (Spain), 8-10th June, 2011, CISIS 2011, LNCS 6694, ISBN: 978-3-642-21323-6, pp 230-237. Springer, Heidelberg (2011). **CORE B**
- [C.18] C. Laorden, B. Sanz, **I. Santos**, P. Galán-García, P.G. Bringas. *Collective Classification for Spam Filtering*. Proceedings of the 4th International Conference on Computational Intelligence in Security for Information Systems (CISIS). Torremolinos (Spain), 8-10th June, 2011, CISIS 2011, LNCS 6694, ISBN: 978-3-642-21323-6, pp. 1-8. Springer, Heidelberg (2011). **CORE B**
- [C.17] **I. Santos**, B. Sanz, C. Laorden, F. Brezo, P.G. Bringas. *Opcode-sequence-based Semi-supervised Unknown Malware Detection*. Proceedings of the 4th International Conference on Computational Intelligence in Security for Information Systems (CISIS). Torremolinos (Spain), 8-10th June, 2011, CISIS 2011, LNCS 6694, ISBN: 978-3-642-21323-6, pp. 50-57. Springer, Heidelberg (2011). **CORE B**
- [C.16] **I. Santos**, J. Nieves, P.G. Bringas. *Semi-supervised Learning for Unknown Malware Detection*. In Proceedings of the 6th International Symposium on Distributed Computing and Artificial Intelligence (DCAI). 9th International Conference on Practical Applications of Agents and Multi-Agent Systems (PAAMS). Salamanca (Spain), 6-8 de Abril, 2011, International Symposium on Distributed Computing and Artificial Intelligence, Advances in Intelligent and Soft Computing, Vol. 91, A. Abraham, J.M. Corchado, S. Rodríguez González and J.F. de Paz Santana (Eds.), ISBN 978-3-642-19933-2, pp 415-422. **CORE B**
- [C.15] J. López-de-Uralde, T. Guraya, A. Okariz, E. Gómez, A. Zubillaga, **I. Santos**. *Automated Image Analysis and Artificial Intelligence applied to microscopic images: a new methodology for the morphological characterization of nano-particles*. In Proceedings of Modelling of Elastomeric Materials and Products. London (U.K.), 14th October, 2010
- [C.14] **I. Santos**, J. Nieves, P.G. Bringas. *Enhancing Fault Prediction on Automatic Foundry Processes*. In Proceedings of the 8th International Symposium on Soft-Computing for Industry (ISSCI), World Automation Congress (WAC). Kobe (Japan), 19-23th September, 2010
- [C.13] J. Nieves, **I. Santos**, P.G. Bringas. *Overcoming data gathering errors for the prediction of mechanical properties on high precision foundries*. In Proceedings of the 8th International Symposium on Soft-Computing for Industry (ISSCI), World Automation Congress (WAC), Kobe (Japan), 19-23th September, 2010
- [C.12] J. López-de-Uralde, I. Ruiz, **I. Santos**, A. Zubillaga, P.G. Bringas, A. Okariz, T. Guraya. *Automatic Morphological Categorisation of Carbon Black Nano-aggregates*. In Proceedings of the 21st International Conference on Database and Expert Systems Applications (DEXA) (Part

- II). Bilbao (Spain), 30 August - 3 September 2010. Database and Expert Systems (Part II), LNCS, Vol. 6262, P.G. Bringas, A. Hameurlain and G. Quirchmayr (Eds.), ISBN: 978-3-642-15251-1, pp. 185-193. **CORE B**
- [C.11] J. Nieves, **I. Santos**, Y. K. Peña, F. Brezo, P.G. Bringas. *Enhanced Foundry Production Control*. In Proceedings of the 21st International Conference on Database and Expert Systems Applications (DEXA) (Part I). Bilbao (Spain), 30 August - 3 September 2010. Database and Expert Systems (Part I), LNCS, Vol. 6261, P.G. Bringas, A. Hameurlain and G. Quirchmayr (Eds.), ISBN: 978-3-642-15364-8, pp. 213-220. **CORE B**
- [C.10] J. M. Gómez-Hidalgo, J. M. Martín-Abreu, J. Nieves, **I. Santos**, F. Brezo, P.G. Bringas. *Data Leak Prevention through Named Entity Recognition*. In Proceedings of the 1st International Workshop on Privacy Aspects of Social Web and Cloud Computing (PASWeb). IEEE International Conference on Privacy, Security, Risk and Trust (PASSAT2010), Minneapolis, USA, August 19-22, 2010, pp. 1129-1134
- [C.9] M. Salazar, D. Gallego, Y.K. Peña, **I. Santos**, P.G. Bringas. *Fault-tolerant Defect Prediction in High-precision Foundry*. In Proceedings of the 8th IEEE International Conference on Industrial Informatics (INDIN'10), Osaka (Japan), 13-16th July 2010, pp. 373-378
- [C.8] **I. Santos**, J. Nieves, Y.K. Peña, P.G. Bringas. *Towards Noise and Error Reduction on Foundry Data Gathering Processes*. In Proceedings of the IEEE International Symposium on Industrial Electronics (ISIE), Bari (Italy), 4-7th July 2010, pp. 1765-1770.
- [C.7] J. Devesa, **I. Santos**, X. Cantero, Y.K. Peña, P.G. Bringas. *Automatic Behaviour-based Analysis and Classification System for Malware Detection*. In Proceedings of the 12th International Conference on Enterprise Information Systems (ICEIS). Funchal (Madeira - Portugal), 8 - 12 June 2010, pp. 395-399. **CORE C**
- [C.6] J. M. Gómez Hidalgo, J. M. Martín Abreu, P G. Bringas, **I. Santos**. *Content Security and Privacy Preservation in Social Networks through Text Mining*. In Proceedings of the 2nd Workshop on Interoperable Social Multimedia Applications (WISMA). Barcelona (Spain), 19 - 20 May 2010.
- [C.5] **I. Santos**, F. Brezo, J. Nieves, Y.K. Peña, B. Sanz, C. Laorden, P.G. Bringas. *Opcode-sequence-based Malware Detection*. In Proceedings of the 2nd International Symposium on Engineering Secure Software and Systems (ESSoS), Pisa (Italy), 3-4th February 2010. Engineering Secure Software and Systems, LNCS, Vol. 5965, F. Massacci, D. Wallach and N. Zannone (Eds.), ISBN: 978-3-642-11747-3, pp. 35-43.
- [C.4] **I. Santos**, J. Nieves, Y.K. Peña, P.G. Bringas. *Machine-learning-based Mechanical Properties Prediction in Foundry Production*. In Proceedings of the ICROS-SICE International Joint Conference (ICCAS-SICE), Fukuoka, Japan, 18-21 August 2009, pp. 4536-4541. **Best Student Paper Award**
- [C.3] J. Nieves, **I. Santos**, Y.K. Peña, Sendoa Rojas, Mikel Salazar, P.G. Bringas. *Mechanical Properties Prediction in High-Precision Foundry Production*. In Proceedings of the 7th IEEE International Conference on Industrial Informatics (INDIN'09), Cardiff (Wales), 24-26th June 2009, pp. 31-36.

- [C.2] **I. Santos**, J. Nieves, Y.K. Peña, P.G. Bringas. *Optimising Machine-learning-based Fault Prediction in Foundry Production*. In Proceedings of the International Symposium on Distributed Computing and Artificial Intelligence (DCAI), Salamanca, Spain, 10-12 June 2009. Distributed Computing, Artificial Intelligence, Bioinformatics, Soft Computing, and Ambient Assisted Living. LNCS Vol. 5518, S. Omatu et al. (Eds.), ISBN: 978-3-642-02481-8, pp. 554-561.
- [C.1] **I. Santos**, Y.K. Peña, J. Devesa, P.G. Bringas. *N-Grams-based file signatures for malware detection*. In Proceedings of the 11th International Conference on Enterprise Information Systems (ICEIS), Volume AIDSS. Milan, Italy, 6 - 10 May 2009, pp. 317-320. **CORE C**

Professional Activities

Conference & Session Chair

- 2015 General Local Chair of the 2015 International Conference on Hybrid Artificial Intelligent Systems (HAIS), Bilbao, Spain.
- 2015 Special Session Chair of the 2015 International Conference on Computational Intelligence in Security for Information Systems (CISIS), Burgos, Spain.
- 2014 Session Chair of the 2014 International Conference on Computational Intelligence in Security for Information Systems (CISIS), Bilbao, Spain.
- 2011 Session Chair of 2011 Database and Expert Systems Applications Conference (DEXA), Toulouse, France.

Program Committee Membership

- “Jornadas Nacionales de Investigación en Ciberseguridad” (JNIC) – (2016, 2015)
- Hybrid Intelligent Artificial System (HAIS) – (2018, 2017, 2016, 2015, 2014, 2013, 2012)
- Database and Expert System Applications (DEXA) – (2018, 2017, 2016, 2015, 2014, 2013, 2012, 2011)
- International Conference on Computational Intelligence in Security for Information Systems (CISIS) – (2018, 2017, 2016, 2015, 2014, 2013, 2012, 2011)
- International Conference on Soft Computing Models in Industrial and Environmental Applications (SOCO) – (2018, 2017, 2016, 2015, 2014, 2013, 2012, 2011)
- International Conference on Information Assurance and Security (IAS) – (2012, 2011)
- CUBE Conference – (2012)
- International Database Engineering & Applications Symposium (IDEAS) – (2012, 2011)

Journal Reviewer

- IEEE Transactions on Information Forensics & Security.
- Journal of Network and Computer Applications.
- Journal of Information Security and Applications.Approx
- Journal of Systems and Software.
- Computers & Security. Approx.
- Information Sciences. Approx.
- Neurocomputing.
- Logic Journal of the IGPL.

I may have reviewed papers for other journals, but eventually I have forgotten their names and the papers I reviewed...

Teaching Activity

PhD & MSc Courses

- Scientific Methodology
Faculty of Engineering,
PhD on Computer Science,
University of Deusto
Academic years: 2014/2015, 2013/2014, 2012/2013
- Scientific Methodology
Faculty of Engineering,
MSc in System Security,
University of Deusto
Academic years: 2013/2014, 2012/2013, 2011/2012
- Advanced Artificial Intelligence
Faculty of Engineering
MSc on Computer Science
University of Deusto.
Academic year: 2013/2014
- New Approaches for Malware Detection
Faculty of Engineering,
MSc in System Security,
University of Deusto
Academic years: 2013/2014, 2012/2013, 2011/2012, 2010/2011

Undergraduate Courses

- Computer Programming I
Graduate on Computer Science, Graduate on Telecommunications
Faculty of Engineering
University of Deusto
Academic years: 2015/2016, 2015/2014
- Software Requirements
Double Degree in Computer Science and Business Administration
Faculty of Economics and Business Administration-ESTE
University of Deusto
Academic years: 2012/2013
- Computer Programming (Industrial Engineering)
Degree in Industrial Engineering
Faculty of Engineering
University of Deusto
Academic years: 2011/2012
- Computer Programming II
Degree in Computer Science & Double Degree in Computer Science & Business Administration
Faculty of Engineering & Faculty of Economics and Business Administration-EST
University of Deusto
Academic years: 2010/2011