Nicko Reginio Caluya

Augmented Reality • Interactive Learning • Training & Educational Environments
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Birthday: February 14, 1993
Birthplace: Muntinlupa City, Philippines
Nationality: Filipino

Education & Employment

2021-2022	Researcher, Interactive Media Design Laboratory
2018-2022	*Doctor of Engineering*, Interactive Media Design Laboratory
2016-2018	*Master of Engineering*, Interactive Media Design Laboratory
	Nara Institute of Science & Technology (NAIST), Japan
2014-2016	Researcher, Ateneo Laboratory for the Learning Sciences
	Assistant Instructor, Department of Information Systems & Computer Science
	Ateneo de Manila University, Philippines
2013-2014	Junior Programmer, Skillshot Labs, Taguig City, Philippines
2009-2013	*Bachelor of Science* in Computer Science
	Specialization in Interactive Multimedia & Games, Minor in Literature-Filipino
	Ateneo de Manila University (ADMU), Philippines

Grants, Honors & Awards

2016-2021	Scholarship Recipient (International Priority Graduate Programs)
	Ministry of Education, Culture, Sports, Science & Technology, Japan
2016	Merit Scholarship Program Award, Asia Pacific Society for Computers in Education
2009-2013	Scholarship Recipient (Merit B Category), Department of Science & Technology, Philippines
2009-2013	Financial Aid Scholar (100% Tuition Fees, Dormitory Fee, & Allowance)
	Ateneo Alumni Scholars Association & Office of Admission & Aid, Ateneo de Manila University
2013	Loyola Schools Awards for the Arts, School of Humanities, Ateneo de Manila University

Teaching

Ritsumeikan University

2023-	33318	*Data Structures and Algorithms*
2023-	32296	*Programming Practice 2*
2022-	35491	*Computer Graphics*
2022-	35601	*Imperative Programming Practice (C)*
2022-	32996	*Programming Practice 1*

Ateneo de Manila University

2016	DGDD 150.1	*Special Topics in Game Studies: History in Digital Games*
2014b, 2015a	CS 30	*Introduction to Information Technology*
2014c, 2015b	CS 177	*Introduction to Computer Graphics Programming*
2014-2015a	CS 179.4	*Special Topics in Interactive Multimedia: 3D Modeling & Animation*

Programming Knowledge

*recently and/or frequently used

2012-	C# for Unity (Games Design & Development)*

2012-	Python* for Math & Linear Algebra Applications, Pandas (Data Manipulation and Analysis)
2016-	WebGL, R* for Statistical Analysis
2011-	C++ for Computer Graphics Programming (OpenGL)
2016-	SPSS for Statistical Analysis
2013-	C for ARToolkit, Objective-C for iOS
2011-	C for Linux/Unix Operating Systems
2010-	MySQL for Database Management Systems, Java for Data Structures & Algorithms

Languages

English	*TOEIC: 990/990 • TOEFL: 104/120*
Japanese	*Basic Knowledge*
Filipino (Tagalog)	*First, Native Language*

Scientific Publications & Conferences

2023   **Nicko R. Caluya**, Xiaoyang Tian, and Damon M. Chandler, "Comparison of AR and VR Memory Palace Quality in Second-Language Vocabulary Acquisition," In Proceedings of *Electronic Imaging* (EI '23). (Invited Paper)

2023   Maheshya Weerasinghe, Klen Čopič Pucihar, Julie Ducasse, Aaron Quigley, Alice Toniolo, Angela Miguel, **Nicko R. Caluya**, Matjaž Kljun, "Exploring the Future Building: Representational Effects on Projecting Oneself Into the Future Office Space" *Virtual Reality* 27, pp. 51﹣70. (Journal)

2021   **Nicko R. Caluya**, Alexander Plopski, Christian Sandor, Yuichiro Fujimoto, Masayuki Kanbara, and Hirokazu Kato, "Does Overlay Field of View in Head-Mounted Displays Affect Spatial Memorization?" *Computer and Graphics*102, pp. 554-565. dx.doi.org/10.1016/j.cag.2021.09.004 (Journal)

2021   **Nicko R. Caluya**, Yuichiro Fujimoto, Masayuki Kanbara, and Hirokazu Kato, "Influencing Driving Speed Using Perception-Based Augmented Reality," In Proceedings of the *Asia Pacific Workshop on Mixed and Augmented Reality* (APMAR '21). (Workshop Paper)

2019   Resty C. Collado, **Nicko R. Caluya**, and Marc Ericson C. Santos, "Teachers' Evaluation of Augmented Reality-Based Motion Graphing Motion," *Journal of Physics: Conference Series* 1286, pp. 1-9. dx.doi.org/10.1088/742-6596/1286/1/012051. (Journal)

2019   **Nicko R. Caluya** and Marc Ericson C. Santos, "Kantenbouki VR: A Virtual Reality Authoring Tool for Learning Localized Weather Reporting," In Proceedings of the *IEEE Conference on Virtual Reality & 3D User Interfaces* (IEEE VR '19), Osaka, Japan, pp. 866-867. dx.doi.org/10.1109/VR.2019.8798216 (Poster)

2018   Eric Cesar E. Vidal, Jr., Jayzon F. Ty, **Nicko R. Caluya**, and Ma. Mercedes T. Rodrigo, "MAGIS: Mobile Augmented-reality Games for Instructional Support," *Interactive Learning Environments* 28(6), pp. 895-907. dx.doi.org/10.1080/10494820.2018.1504305 (Journal)

2018   **Nicko R. Caluya**, Alexander Plopski, Jayzon F. Ty, Christian Sandor, Takafumi Taketomi, and Hirokazu Kato, "Transferability of Spatial Maps: Augmented Versus Virtual Reality Training," In Proceedings of the *IEEE Conference on Virtual Reality & 3D User Interfaces* (IEEE VR '18), Reutlingen, Germany, pp. 387-393. dx.doi.org/10.1109/VR.2018.8447561 (Conference Paper)

2017   Resty C. Collado, **Nicko R. Caluya**, and Marc Ericson C. Santos "Teachers' Evaluation of Augmented Reality-Based Motion Graphing Motion," In Proceedings of the *International Conference on Physics Education* (GIREP-ICPE-EPEC '17), Dublin, Ireland. (Conference Paper)

2016   Ma. Mercedes T. Rodrigo, **Nicko R. Caluya**, Eric Cesar E. Vidal, Jr., Jenilyn L. Agapito, and Walfrido David A. Diy III. "Usability Study of an Augmented Reality Game for Philippine History," Paper, In Proceedings of the *International Conference for Computers in Education*, Mumbai, India. (Conference Paper)

2016   Eric Cesar E. Vidal, Jr., Jayzon F. Ty, **Nicko R. Caluya**, and Ma. Mercedes T. Rodrigo. "MAGIS: Mobile Augmented- reality Games for Instructional Support," In Proceedings of the *3rd Asia-Europe Symposium on Simulation & Serious Gaming* (VRCAI '16). ACM, New York, NY, USA, pp. 191-194. (Conference Paper)

2015   Ma. Mercedes T. Rodrigo, **Nicko R. Caluya**, Walfrido David A. Diy III, and Eric Cesar E. Vidal, Jr. "Igpaw: Intramuros – Design of an Augmented Reality Game for Philippine History," Paper, In Proceedings of the *International Conference for Computers in Education*, Hangzhou, China. (Conference Paper)

2013   **Nicko R. Caluya** and Juan Carlos G. Mapua. "Developing a Real-time Tactics Game Using an Optimized

Cost-Effective Eye-Tracking Device," *Philippine Computing Science Congress*, Manila, Philippines. (Poster)

Service & Internships

2023	Session Chair and Panel Moderator, *Special Session on AR/VR, Human Vision and Electronic Imaging* (HVEI)
2023	Reviewer, *IEEE Transactions on Visualization and Computer Graphics* (IEEE TVCG)
2023	Reviewer, *Human Factors in Computing Systems* (CHI)
2022-2024	Reviewer, *International Symposium on Mixed and Augmented Reality* (ISMAR)
2021-2023	Reviewer, *Virtual Reality Software and Technology* (VRST)
2020,2021	Reviewer, *Interactive Learning Environments*
2019	Intern, Humans Interacting with Computers at University of Primorska (HICUP Lab) (Koper, Slovenia)
2019, 2020	Student Volunteer and Reviewer, (Osaka, Japan); Reviewer (Virtual); *IEEE Virtual Reality*
2017-2021	Organizer (Logistics, Web Design), NAIST Project for Interns (for Ateneo de Manila University
2015, 2018	Student Volunteer and Reviewer, SIGGRAPH ASIA 2015 (Kobe, Japan), 2018 (Tokyo, Japan)
2018	Intern, Remote Internships for Young Researchers - Weathernews Inc. (Chiba-shi, Japan)
2013	Intern, Ateneo Laboratory for the Learning Sciences (ADMU) & Interactive Media Design Laboratory (NAIST) Joint Internship for Augmented Reality

Talks & Demonstrations

May 2022	"Newer Fields of View: Perceptual and Performance Effects in XR Across Disciplines", for the Ateneo Laboratory for the Learning Sciences Lecture Series, online.
Jun 2016	"The Role of Architecture in an Augmented Reality Game for Philippine History", for Architectural Students' Association of the Philippines - UP Chapter, RealityX: A Virtual Reality Experience, Quezon City, Metro Manila, Philippines.
Sep 2015	"Mixed Reality: Virtual and Augmented Reality Technologies and Applications", for Manresa School, Parañaque City, Metro Manila, Philippines.
Feb 2015	"Designing and Developing An Augmented Reality Game for Philippine History", for Philippine Society of Information Technology Students-Western Visayas (PSITS-WV), Kapis Mansions, Roxas City, Capiz, Philippines.
Feb 2015	"3D Modeling & Animation", for University of the Philippines Association of Computer Science Majors (UP CURSOR) Computer Science Summit 1.0, Quezon City, Metro Manila, Philippines.
Oct 2014	"Computer Games & Affective Computing", for Immaculate Conception Academy, Mandaluyong City, Philippines.
May 2013	"Authoring Editable AR Content on Paper Bills", Nara Institute of Science & Technology, Nara, Japan.
Feb 2013	"Developing a Real-time Tactics Game Using an Optimized Cost-Effective Eye-Tracking Device.", Ateneo de Davao University, Davao City, Philippines.

(Miscellaneous) Literary Publications & Workshops

2022	**Nicko Reginio Caluya** translates Edgar Calabia Samar, "No Deity of Fire", "Corner", "Folktale", *ANMLY 35 - Kognisyon: Contemporary Philippine Literature in Translation.*
2022	**Nicko Reginio Caluya**, "Katawan Ko ang Eskaparate at Kalansay ng Aking Nakaraan ang Laman", *Heights* Vol. LXIX No. 2, Quezon City: Ateneo de Manila University.
2021	**Nicko Reginio Caluya**, "Mga Nagpapahinga / Bodies at Rest / 静止している物体", "Pagkilatis kay Derek", *TLDTD Issue No. 2.*
2021	**Nicko Reginio Caluya**, "Riddle", *49 Philippine-Language Poets in Translation*, *The Loch Raven Review.*
2020	**Nicko Reginio Caluya**, *#NOVISION2020* for *Curare Art Space.*
2020	**Nicko Reginio Caluya**, *Nasa Loob ang Kulo: Selected Haikai, 2013‑2019.*
2018	**Nicko Reginio Caluya**, "Kinakalinga", *In Sight of Sharks: A Literary and Artistic Collection for Shark Awareness*, Makati City: Marine Wildlife Watch of the Philippines.
2017	**Nicko Reginio Caluya**, "Soneto 80", "Inhenyeriya", "Arrangements", *Heights* Vol. LXV No. 1, Quezon City:

Ateneo de Manila University.

2014   **Nicko Reginio Caluya**, "Umuulan sa Lupang Arenda", "Alinlangan", *Heights* Vol. LXI No. 2, Quezon City: Ateneo de Manila University.

2013   **Nicko Reginio Caluya**, "Local Express", "Shinsaibashi-suji", "Ligaw na Salin", "Mga Usa ng Todaiji", "Takayama", *Heights* Vol. LXI No. 1, Quezon City: Ateneo de Manila University.

2013   **Nicko Reginio Caluya**, "Regular Expressions", "Tanaw Mula sa Punta Fuego", "Pasintabi kay Feynman", "Balanse", *Heights* Vol. LX No. 4, Quezon City: Ateneo de Manila University.

2012   Nicko Reginio Caluya, "Gemini", *Heights* Vol. LX No. 2, Quezon City: Ateneo de Manila University.

2012   **Nicko Reginio Caluya**, "Manman", "Babala", "Dayuhan", "Being Erasure", *Heights* Vol. LX No. 1, Quezon City: Ateneo de Manila University.

2012   **Nicko Reginio Caluya**, "[I believe in nothing. Just.]", "Digmaan", *Heights* Vol. LIX No. 2, Quezon City: Ateneo de Manila University.

2012   Fellow, 11th Ateneo National Writers' Workshop. Quezon City, Metro Manila, Philippines.

2012   **Nicko Reginio Caluya**, "Aquarius", "Aquarius", "Erehe", "Paliwanag", *Heights* Vol. LIX No. 1, Quezon City: Ateneo de Manila University.

2010   **Nicko Reginio Caluya**, "7 Minuto ng Kasalanan", *Heights* Vol. LVII No. 2, Quezon City: Ateneo de Manila University.

2010   Fellow, 16th Ateneo Heights Writers' Workshop. Antipolo City, Rizal, Philippines.