

Contacts

giuseppe.naponiello@iamcoder.it

iamcoder.it

github.com/beppenapo

orcid.org/0009-0006-2258-6032

linkedin.com/in/giuseppe-naponiello

Pisa, Italy

Profile

I build web applications and dynamic platforms, design and maintain relational and geographic database models, and run server infrastructure and its security. For more than fifteen years I have been working where computing meets cultural heritage.

Technical skills

Web development

HTML · CSS · JavaScript · TypeScript · PHP · Python

Databases & data modelling

PostgreSQL · PostGIS · MySQL · Geodatabase

Systems & servers

Linux · Docker · Server administration

GIS & 3D

QGIS · GRASS · Geodata processing · 3DHOP

Practices

Free and open source software development

Digital documentation platforms

Giuseppe Naponiello

Web App Developer · Database Architect · System Administrator

Professional experience

2025 – present
Web & Database Developer
I_Am_Coder (freelance) · Italy

Web development, database modelling and administration, backend systems and digital solutions for businesses and cultural heritage management.

2011 – 2024
Member administrator
Arc-Team s.r.l. · Cles (Italy)

General administration, archaeological excavation and research in Italy and abroad, digital documentation, Free and Open Source Software development, database modelling and administration, server administration, systems for the protection and enjoyment of cultural heritage.

2009 – 2010
Collaborator
Sistemi Territoriali srl · Pisa (Italy)

European projects P.Im.Ex and NoFarAccess, on monitoring cross-border maritime trade flows and on improving accessibility for areas affected by insularity and remoteness.

Academic positions

2025
Project Assistant – IT Consultant
University of Oslo · Museum of Cultural History

Main project: BitFROST 2.0 platform.

2022 – 2025
Research Engineer – Project Assistant – IT Consultant
Lund University · Department of Archaeology and Ancient History

Main project: Dynamic Collections Platform.

2019
Lecturer
University of Pisa · Summer school “Investigating Historical Landscapes and Architectures”

Laboratories on maps and toponyms (databases and GIS) and on photogrammetry and 3D documentation of archaeological and architectural features.

2013 – 2014
Lecturer
University of Siena · UNESCO Master's programme “Open Techne”

Databases, advanced geodatabase management and programming of web-based GIS platforms.

Education

2012
Master of Arts in Logistics-oriented Geographic Information Systems
University of Pisa

Final projects “P.Im.Ex” and “No Far Access”: a database and two logistics-oriented WebGIS prototypes, in an open source environment.

2009

Bachelor of Arts and Philosophy in Archaeology

University of Pisa · 106/110

Dissertation: LabArcheOS, an open source system for archaeological data filing and a WebGIS (Montescudaio, Val di Cecina).

2006

Training course in anthropological bone histology

Sapienza University of Rome

2003

Advanced training course on the study of burials

Université Bordeaux 1 · France

Projects

2025

BitFROST 2.0

Upgrade of BitFROST, an infrastructure for creating and using 3D models that supports multiple forms of interaction and advanced research.

MySQL · PHP · JavaScript

2024

Bunker Museum 3D

Three-dimensional reconstruction of a World War II bunker on the Toblach defence line, used during the Cold War and now home to the BunkerMuseum.

HTML · JavaScript · bunker.arc-tool.com

2022

Dynamic Collections

Web platform for deep, structured interaction with large collections of 3D digital replicas of archaeological artefacts, used in university courses and research.

MySQL · PHP · JavaScript · dyncoll.ht.lu.se

2021

Cultural landscapes of Val di Cembra

Photographic archive that preserves the iconographic documents of the Network of Reserves and makes them accessible to the community, researchers and enthusiasts.

PostgreSQL · PostGIS · PHP · JavaScript · archiviofotografico.reteriservevaldicembra.tn.it

2021

Inclusivity on the Via Claudia Augusta

Progressive Web App that lets visually impaired and disabled people follow a section of the Via Claudia Augusta.

PWA · JavaScript · GPS

2020

MArTA 2.0

Cataloguing, photographic and three-dimensional documentation and a museum management system for the National Archaeological Museum of Taranto.

PostgreSQL · PostGIS · PHP · JavaScript · 3DHOP

2020

VirtualArch

Interactive mobile app that makes the traces of medieval mining on Monte Calisio accessible: a hidden archaeological heritage to protect and enhance.

PWA · JavaScript · 3DHOP · arcteam.github.io/virtualArch.github.io

2018

Valle di Ledro photographic archive

Participatory platform collecting historical photographs of the Ledro valley from individuals, archives and institutions, following Creative Commons principles.

PostgreSQL · PostGIS · WebGIS · PHP · JavaScript · fotostoricheledro.it

2018

Community Landscapes

Participatory iconographic archive of the Alta Valsugana landscape: more than 8,300 freely accessible images for research, education and land planning.

PostgreSQL · PostGIS · PHP · JavaScript · altavalsugana.paesaggiocomunita.it

2018

Progetto Memoria

Paganella photo archive: more than 6,500 historical photographs (1870–1970) digitised and published in open access under Creative Commons licences.

PostgreSQL · PostGIS · PHP · JavaScript · bibliopaganella.org

2018

Virtual Heritage – Via Claudia Augusta

Database modelling and web application development for a historical reconstruction of the Via Claudia Augusta.

PostgreSQL · PostGIS · PHP · JavaScript

2017

1753

Cross-border project to rediscover and preserve the 1753 boundary stones between Tyrol and Venice, with a historical trail telling over 2,000 years of border history.

PWA · PostgreSQL · PostGIS · WebGIS · PHP · 1753.eu

2016

GeTTexture

App for determining sediment texture with the soil triangle, designed for use in the field.

JavaScript · HTML · PWA · arc-team-open-research.blogspot.com/2016/08/gettexture-goes-portable.html

2016

WW1 3D

Web 3D viewer presenting the archaeological sites of the Great War, with the models' metadata stored in a PostgreSQL database.

PostgreSQL · PostGIS · PHP · JavaScript · 3DHOP

2015

Sources for history

Cataloguing of nine types of historical sources for the Primiero and Vanoi valleys and a historical WebGIS based on uniformly structured spatial and temporal data.

PostgreSQL · PostGIS · WebGIS · PHP · JavaScript · lefontiperlastoria.it

2013

Aquae Patavinae

Geographic data management system for archiving the Roman thermal sites of Italy.

PostgreSQL · PostGIS · PHP · JavaScript

2013

Kosmos

Territorial information system for the geological data of Friuli Venezia Giulia.

MySQL · PHP · JavaScript

2013

Lower Valdarno museum network

Information tool on the cultural heritage of the Lower Valdarno: cultural itineraries and a search across points of interest to plan a personalised visit.

PostgreSQL · PostGIS · PHP · JavaScript · valdarno-trails.it

2011

RAPTOR

Information system for archaeological Superintendencies that combines administrative procedures and topographic data in a single web interface.

PostgreSQL · PostGIS · PHP · JavaScript · 3DHOP · raptor.cultura.gov.it

Full details: iamcoder.it/en/projects

Publications

1 Bezzi, L., Bezzi, A., Gietl, R., Moraes, C., **Naponiello, G.**, Airò, S., Putzer, A., Silvestri, E. (2024). Digital twins of archaeological finds: open source technologies applied to 3D scanning. *Archeologia e Calcolatori, 35(2), pp. 203–214*. doi:10.19282/ac.35.2.2024.22

2 Callieri, M., Berggren, Å., Dell'Unto, N., Derudas, P., Dininno, D., Ekengren, F., **Naponiello, G.** (2023). The dynamic collections: a 3D web platform of archaeological artefacts designed for data reuse and deep interaction. *Proceedings of the 50th CAA conference (CAA 2023)*. doi:10.5281/zenodo.8305189

3 Heinsch-Kuntner, S., Kuntner, W., Shirazi, R., Darvish-Zadeh, A., Bezzi, L., Bezzi, A., Gietl, R., **Naponiello, G.** (2021). Digital archaeological documentation of iranian monuments – DADIM : Recording and monitoring cultural heritage. *Proceedings of the International Conference on Cultural Heritage and New Technologies, 26(Preview)*.

4 Bezzi, L., Bezzi, A., Gietl, R., **Naponiello, G.** (2021). First world war landscapes on the alpine front line: New technologies between wish and (augmented) reality. *Conflict landscapes. Materiality and meaning in contested places*. doi:10.4324/9781003149552-8

5 Bezzi, L., Bezzi, A., Feistmantl, K., Gietl, R., **Naponiello, G.** (2021). Real-time 3D and archaeology: a status report. *Environmental Sciences Proceedings, 10(1), pp. 16*. doi:10.3390/environsciproc2021010016

6 Reyes, A., Bezzi, L., **Naponiello, G.**, Gietl, R. (2020). ATOR Project Manager, un assistente vocale per i progetti archeologici. doi:10.5281/zenodo.3723323

7 Bezzi, L., Bezzi, A., Gietl, R., **Naponiello, G.**, Feistmantl, K. (2019). Archeorobotics. Applicazioni robotiche aperte e archeologia estrema. *Archeologia e Calcolatori, 30, pp. 467–470*. doi:10.19282/ac.30.2019.31

8 Bezzi, L., Bezzi, A., Gietl, R., **Naponiello, G.** (2018). Archeologia del Conflitto Moderno. Un approccio alla disciplina basato sulla Field Archaeology. *Archeologia Postmedievale : società, ambiente, produzione, 22*.

9 Bezzi, L., Bezzi, A., Boscaro, C., Feistmantl, K., Gietl, R., **Naponiello, G.**, Ottati, F., de Guzman, M. (2018). Commercial archaeology and 3D web technologies. *Journal of Field Archaeology, 43(sup1), pp. s45–s59*. doi:10.1080/00934690.2018.1505410

10 Bezzi, L., Bezzi, A., Gietl, R., **Naponiello, G.** (2018). La barca dei diavoli. Un relitto della Grande Guerra a 2409 m di altitudine. *Archeologia Postmedievale : società, ambiente, produzione, 22*.

11 Bezzi, L., Bezzi, A., Bonfanti, F., Feistmantl, K., Gietl, R., **Naponiello, G.** (2018). La prima guerra mondiale sul garda orientale. Un progetto di archeologia del conflitto. *La Prima Guerra Mondiale sul Garda orientale. Operazioni belliche e vicende militari sul lago e l'entroterra montano, pp. 175–207*. doi:10.12977/stor562

12 Bezzi, L., Bezzi, A., Gietl, R., Moraes, C., **Naponiello, G.** (2018). La Tagliata della Rocchetta : la ricostruzione digitale di un forte della grande guerra. *Archeologia Postmedievale : società, ambiente, produzione, 22*.

13 Bezzi, L., Bezzi, A., Gietl, R., Feismantl, K., **Naponiello, G.** (2018). La villa romana dei Nonii Arrii a Toblino. Tecniche archeologiche applicate alla ricerca. *Archeologia delle alpi - studi in onore di gianni ciurletti, pp. 155–162*.

14 Bezzi, A., Bezzi, L., Gietl, R., **Naponiello, G.**, Zambelli, D. (2017). Frontgebiete unter der lupe. Die archäologie des ersten weltkrieges im gebirge neue ergebnisse der großflächigen archäologischen dokumentationskampagne am westlichen karnischen kamm. *„Die kahlen, kalten berge ...“ der erste weltkrieg im alpenraum, die deutsche gebirgstruppe und das württembergische gebirgsbataillon, pp. 84–99*. doi:10.1515/9783035613315-003

15 Bezzi, A., Gietl, R., **Naponiello, G.**, Nicolussi, K., Steiner, H., Pichler, T. (2016). Glacial finds from the langgrubenjoch (gde. Mals and gde. Schnals) in south tyrol. Preliminary report. *Archälogisches Korrespondenzblatt, 46, pp. 167–182*.

16 Frassine, M., **Naponiello, G.**, De Francesco, S., Asta, A. (2016). RAPTOR 1.5. Aggiornamenti e sperimentazione. *Archeologia e calcolatori, supplemento 8, pp. 61–71*.

17 Brunet, F., Cosner, A., **Naponiello, G.** (2016). WebGIS interdisciplinari e questioni di metodo: il progetto Le fonti per la storia. *Archeologia e calcolatori, supplemento 8, pp. 141–149*.

18 Bezzi, A., Bezzi, L., Fondriest, G., Gietl, R., **Naponiello, G.**, Segata, M. (2015). Lo Scavo archeologico professionale, innovazioni e best practice mediante metodologie aperte e Open Research. *Lo scavo archeometrico*. doi:10.2307/j.ctvndv6tz.6

19 Frassine, M., **Naponiello, G.**, De Francesco, S., Asta, A. (2015). RAPTOR 1.1. Archeologia nella "pratica": dai progetti alla documentazione di scavo. *SITAR. Atti del III convegno internazionale, pp. 169–178*.

20 Frassine, M., Rigoni, A. N., Bezzi, A., Bezzi, L., **Naponiello, G.** (2014). Un prototipo di Augmented Reality per la valorizzazione della villa romana di Torre di Pordenone. *Archeologia e Calcolatori, 25, pp. 189–206*. doi:10.19282/ac.25.2014.10

21 Frassine, M., Rigoni, N., Bezzi, L., Bezzi, A., **Naponiello, G.** (2014). Un prototipo di Augmented Reality per la valorizzazione della villa romana di Torre di Pordenone (Friuli Venezia Giulia). *Archeologia e Calcolatori, 25, pp. 189–206*.

22 Rezza, S., **Naponiello, G.** (2013). La chiesa di Sant'Apollinare di Trento: risultati preliminari dell'analisi antropologica dei resti scheletrici. *Chiese altomedievali in Trentino e nell'arco alpino orientale, LXXVII, pp. 89–98*.

23 Frassine, M., **Naponiello, G.** (2013). RAPTOR 1.0. Archeologia e pubblica amministrazione: un nuovo geodatabase per la tutela. *Archeologia e calcolatori, supplemento 4, pp. 88–95*.

24 Baldassarri, M., **Naponiello, G.**, Pagni, G. (2012). Elaborazione di un sistema di schedatura dati e sviluppo di un Web GIS per la consultazione dei dati archeologici: il caso di Montescudaio in Val di Cecina (PI). *Open source free software e open format nei processi di ricerca archeologica*. doi:10.5334/bae.f

25 Pisu, N., **Naponiello, G.** (2012). Libera circolazione di dati archeologici: il caso dello scavo di S. Vigilio di Ossana (TN). *Atti del III workshop open source, free software e open format nei processi di ricerca archeologici, pp. 69–84*. doi:10.2307/j.ctv12sdx29.6

26 Frassine, M., **Naponiello, G.** (2012). RAPTOR: archeologia e tutela. Verso la pubblica amministrazione digitale. *Archeologia e Calcolatori, 23, pp. 81–100*. doi:10.19282/ac.23.2012.05

27 Heinsch, S., Kuntner, W., **Naponiello, G.** (2011). Aramus excavations and FieldSchool, esperienze con free/libre e open source software. *ARCHEOFOSS. Open source, free software e open format nei processi di ricerca archeologica, pp. 1–12*.

28 Bezzi, A., Bezzi, L., Endrizzi, L., Frassine, M., Gietl, R., **Naponiello, G.**, Pisu, N. (2011). Progetto Castellum Vervassium: dal dato archeologico al WebGIS. Analisi integrate per la ricerca, la tutela e la valorizzazione di un territorio nella bassa e media Anaunia (Val di Non, Trentino). *Archeologia e Calcolatori, 22, pp. 67–98*.

29 Endrizzi, L., Frassine, M., Gietl, R., **Naponiello, G.**, Pisu, N. (2011). Progetto Castellum Vervassium. Lettura integrata di un territorio tra topografia classica e software FLOSS. *ARCHEOFOSS. Open source, free software e open format nei processi di ricerca archeologica, pp. 35–45*.

30 **Naponiello, G.**, Pisu, N. (2010). Libera circolazione di dati archeologici: il caso dello scavo di S. Vigilio di Ossana (TN). *The Journal of Fasti Online*.

31 **Naponiello, G.**, Pisu, N. (2008). Libera circolazione dei dati archeologici: il caso dello scavo di S. Vigilio di Ossana (TN). *Atti del III workshop open source, free software e open fomat nei processi di ricerca archeologica*.

32 Dadà, M., **Naponiello, G.**, Paribeni, E. (2007). Fivizzano (MS). Monte dei Bianchi: monastero medievale di San Michele Arcangelo, prima campagna di scavi (agosto 2007). *Notiziario della Soprintendenza per i Beni Archeologici della Toscana, 3, pp. 22–30*.

33 Baldassarri, M., **Naponiello, G.**, Pagni, G. (2007). L'Open Source in archeologia. Elaborazione di un sistema di schedatura e sviluppo di un web GIS per la consultazione dei dati archeologici : il caso di Montescudaio in Val di Cecina (PI). *Atti del II workshop open source, free software e open fomat nei processi di ricerca archeologica*.

34 Mallegni, F., Pagni, G., Cortesi, A., **Naponiello, G.** (2004). A cranial trepination from the renaissance aristocratic sacellum in San Cerbone, Populonia. *15th european meeting of the paleopathology association*.