

Dr. Jacob W. Archambault

LOGICIAN · ONTOLOGIST · FULL-STACK DEVOPS DEVELOPER

[🏠 jacobarchambault.com](https://jacobarchambault.com) [✉ jacobarchambault@gmail.com](mailto:jacobarchambault@gmail.com) [📞 +1 401 450 4768](tel:+14014504768)
[🐙 github.com/JacobArchambault](https://github.com/JacobArchambault) [in linkedin.com/in/JacobArchambault](https://www.linkedin.com/in/JacobArchambault) [🎓 Google scholar](https://scholar.google.com/citations?user=...)

EDUCATION

2017	Ph.D. , philosophy	FORDHAM UNIVERSITY, BRONX, NY
	Dissertation: The development of the medieval Parisian account of formal consequence. Director: Professor Gyula Klima. Passed without corrections.	
2011	M.A. , philosophy (cum laude)	UNIVERSITY OF HOUSTON, HOUSTON, TX
2009	B.A. , philosophy (cum laude)	FRANCISCAN UNIVERSITY OF STEUBENVILLE, STEUBENVILLE, OH
2021	A.S. , software development	JEFFERSON COMMUNITY AND TECHNICAL COLLEGE, LOUISVILLE, KY

PROFESSIONAL CERTIFICATIONS

Dec 2023-Dec 2026	AWS certified solutions architect - associate
Jul 2023-Dec 2026	AWS certified cloud practitioner

EMPLOYMENT

May 2022-present	Venminder	SOFTWARE DEVELOPER II
	Created DynamoDB tables via AWS CloudFormation for control assessments containerized microservice instantiating CQRS architecture, and added generic batch update ability to our Dynamo data access library using AWS SDK for .NET. Refactored multiple LINQ-to-SQL queries to prevent timeouts for our largest customers and realize major performance improvements after companywide SQL Server-to-PostgreSQL migration. Replaced longer monthly retrospectives with shorter more frequent retrospectives aligned with our weekly release cycle, leading to more consistent follow-through and better cross-department collaboration.	
April 2021-May 2022	PetPartners	ASSOCIATE SOFTWARE DEVELOPER
	Created backend logic, C# web API endpoints, and normalized SQL tables via EF migrations for handling commission payments to subcontracted companies and internal call center agents for new flagship employer-based pet insurance product. Consolidated repeat API calls and removed Cartesian explosion for premium tracking feature causing slow coverage period loading, leading to a 26X performance improvement. Wrote wiki documentation for the company's release process, git workflow, and numerous routine bugfixes, scripted automation of .NET web API publication for local development environments, and created Azure DevOps bug template subsequently adopted across entire company.	
Aug 2019-April 2021	Waystar	SOFTWARE DEVELOPER APPRENTICE
	Pioneered work converting .NET Framework projects to containerized .NET Core projects running on Docker; co-led company-wide training on using YAML for Azure DevOps pipeline configuration; built, deployed, and configured team projects with Azure DevOps, and set up logging of automated alerts from AIO load balancers to Microsoft Teams and Splunk. Fixed bugs in Chrome and Firefox web crawlers, written as Java Maven projects using Selenium, obtaining patient payment information from insurance provider websites, and deployed those fixes to development and production environments with Jenkins.	

HIGHLANDS LATIN SCHOOL

2017-2018

Philosophy, Latin, and classics teacher

Louisville, KY. Taught college-level material in Latin, ontology, and classics at advanced private high school. Led ontology students to fully reconstruct arguments and critically explicate texts from Plato, Aristotle, Thomas Aquinas, and others. Led Latin students to translate both from and to Latin, with assignments principally focused on Caesar. By pairing classic texts with carefully designed assignments, I improved student learning outcomes while decreasing student workload, leading 90% of students to earn the highest letter grade available.

FORDHAM UNIVERSITY

2015-2017

Distinguished research fellow

Bronx, NY. Published numerous articles, book contributions, and an edited volume with publishers including Cambridge University Press, Brill and Springer, secured grants and honors from institutions including the University of Salzburg and the University of St Andrews, and presented papers at prestigious institutions across three continents, primarily in the history and philosophy of logic. For a full list of publications and presentations, see my CV.

SELECT PROJECTS

2020-present

OWL

FAMILY TREE ONTOLOGY

A growing *ontology*, that is, an organized categorization of reality into various types, detailing my family tree, starting from simple relationships and defining more complex ones in terms of the simpler ones. Written in OWL/RDFS and developed with Protégé ontology editor.

2020

MUSIC ONTOLOGY

A music ontology focused on The Beach Boys' discography, detailing relations among songs, artists, albums, band members, and songwriters, among others.

2020-present

COUNTRY ONTOLOGY

A highly modular *ontology* created via the use of imports and multiple files, based on the U.S. states and their common regional divisions according to the US Census.

2021

Java

TRIP REIMBURSEMENT CALCULATOR

A Maven JavaFX application that calculates, then displays meal, travel, and lodging reimbursement amounts based on different maximum daily allotments from user inputs.

2021

SLOT MACHINE GAME

A Maven JavaFX *slot machine* game that displays per turn and total winnings on each spin, calculated from the player's bet and number of matches.

2021

EMPLOYEE REFACTOR

A Java tutorial showing through its git history how to convert a tightly coupled application using inheritance and mutable fields into one implementing best practices including strong encapsulation, composition over inheritance, object cohesion, loose coupling, immutability, and dependency injection, via an application printing out information for various types of employees. Includes an extensive README explaining the implemented design decisions.

2020-present

C# .NET

AUTO LOT MVC STORE

A three-project .NET 5 MVC solution consisting of a website front-end, a data access layer, and a model layer. Makes use of .NET 5 records, razor view components, custom tag helpers, exception filters, custom routing, YAML pipeline configuration with GitHub actions, and LINQ queries over objects linked via entity framework core to a SQL Server relational database. Expanded from a *Pro C# 7* tutorial.

2020

STUDENT INFO APP

Code Louisville certification received for completing coursework and this *console project* serializing student data gathered from user prompts to a JSON file. Implemented C# features include LINQ queries, reflection, delegates, exception handling, and JSON serialization.

2019 Python/SQL CPI INDEX ANALYSIS
 Code Louisville certification received for completing coursework and Jupyter Notebook project analyzing consumer price index data, demonstrating facility with SQL queries, commands and joins, Python database connections and the pandas and matplotlib libraries for data analysis and visualization.

AWARDS AND HONORS

2017-2018 Ernst Mach Grant UNIVERSITÄT SALZBURG, INSTITUT FÜR PHILOSOPHIE
 9,450 €. Salzburg, Austria. Awarded for project: 'Grounding Logical Consequence'. Supervisor: Prof. Julien Murzi. Financed by the Austrian Agency for International Cooperation in Education and Research (OeAd-GmbH), Centre for International Cooperation & Mobility (Declined).

2016-2017 Alumni dissertation fellowship. FORDHAM UNIVERSITY
 \$30,450. Granted to aid completing a dissertation in the history of logic, including translations of previously untranslated early medieval logic texts.

2015-2016 Mark and Kathryn Tomasic endowed fellowship. FORDHAM UNIVERSITY
 \$26,530 and reprieve from teaching responsibilities. Granted for exemplary research in medieval philosophy.

2015 Summer research fellowship. FORDHAM UNIVERSITY
 \$4,000. Granted for manuscript research project on texts used to teach logic in medieval France.

2014 Visiting postgraduateship ARCHÉ RESEARCH CENTRE, UNIVERSITY OF ST ANDREWS
 St Andrews, Scotland. Competitive visiting postgraduateship with University of St Andrew's Arché Research Centre for Language, Logic, Metaphysics and Epistemology. Conducted research supervised by professor Stephen Read on the history and philosophy of logic, presented research at and participated in the centre's weekly colloquia.

SELECT PUBLICATIONS

EDITED VOLUME

- 2018 1. *Consequences in medieval logic*. *Vivarium* 56:3-4, 201-366.

JOURNAL ARTICLES

- 2022 2. '13th-14th century theories of inference'. *The Reasoner* 16:4, 31-32.
- 2019 3. 'Counterpossibles and normal defaults in the *filioque* controversy'. *Logica Universalis* 13:4, 443-455.
- 2018 4. 'Introduction: consequences in medieval logic'. *Vivarium* 56:3-4, 201-221.
5. 'Consequence and formality in the logic of Walter Burley'. *Vivarium* 56:3-4, 292-319.
- 2017 6. 'Monotonic and non-monotonic embeddings of Anselm's proof'. *Logica Universalis* 11:1, 121-138.

CONFERENCE PROCEEDINGS

- 2018 7. 'Mereological hylomorphism and the development of the medieval substitutional account of formal consequence'. In G. Klima and A. Hall (eds.), *Hylomorphism and Mereology: Proceedings for the Society of Medieval Logic and Metaphysics* 15 (Cambridge Scholars), 81-103.

WEB PUBLICATIONS

2019

8. 'Object-oriented programming objects aren't objects'. *Medium.com, programming*. May 11
9. 'On semantic ambiguity in Anselm of Canterbury's ontological argument'. *Medium.com, philosophy*. May 8.

SKILLS

DevOps	KUBERNETES, AWS, AZURE DEVOPS, DOCKER, JENKINS
Ontology/knowledge engineering	OWL, RDF, PROTÉGÉ, SWRL, SPARQL
Data engineering	DYNAMODB, POSTGRESQL, SQL SERVER, MONGODB
JVM	SCALA, INTELLIJ IDEA, JAVA, SELENIUM, JUNIT, GRADLE, MAVEN, JAVA FX, ECLIPSE
Data analysis	PYTHON, PANDAS, MATPLOTLIB, JUPYTER NOTEBOOKS
Web development	TYPESCRIPT, ANGULAR, AURELIA, NODE.JS, BOOTSTRAP, JQUERY, WORDPRESS
.NET	ENTITY FRAMEWORK CORE, LINQ, XUNIT, ASP.NET CORE, BLAZOR

REFERENCES

Brian Donohue
 Ontology & Semantics
 Manager, Enterprise Data
 Management
 Capitol One
 1680 Capitol One Drive
 McLean, VA 22102
 1 (703) 223 9882
 brian.donohue@capitolone.com

Graham Priest
 Distinguished Professor of
 Philosophy
 Graduate Center, City
 University of New York
 Department of Philosophy
 365 5th Ave
 New York, NY 10016
 +1 917 391 4114
 priest.graham@gmail.com

Gyula Klima
 Professor of Philosophy
 Fordham University
 Collins Hall 101
 441 E. Fordham Rd
 Bronx, NY 10458
 +1 646 919 2990
 klima@fordham.edu