

CHRISTOPHER YORK

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Consultancy: Black Ship Limited (UK)

PROFILE Software architecture and coding for data visualisation and data science. Artificial intelligence and programming language semantics.

SKILLS & FOCUS Multi-language and -paradigm programming. Expert: Javascript, Java, Ruby, relational databases. Professional experience: Python, Perl, Lisp. Enthusiast: Haskell, Agda.
Information architecture and data modelling; Data warehousing and analytics; GIS and data visualisation.
UNIX, git, shell and related workflows. TDD and agile methodologies.

EXPERIENCE **LONDON SCHOOL OF ECONOMICS** London, UK
DATA VISUALISER 2015—2017

Designed and coded project-specific data visualisations highlighting social-science research at LSE. Liaised with academics to analyze primary source datasets and identify relevant metrics and interactivity. Graphic design and implementation of visualisations. Javascript, D3, NumPy/Pandas, CSS.

MASSACHUSETTS INSTITUTE OF TECHNOLOGY Cambridge, MA
CONSULTANT, MIT HYPERSTUDIO 2014—2015

Built software tools for in-memory data analytics and visualisation over digital humanities and social science datasets. Research into drillable infographics that combine analytics and faceted search. Javascript, Node, PostgreSQL, D3, CSS.

CONSULTANT, MIT HYPERSTUDIO 2005 — 2010

Designed and implemented HyperStudio Repertoire, a modular toolkit for digital media projects, comprising purpose-built data models, faceted search, GIS, and flexible permissions and collaboration. Repertoire was used to implement humanities and social sciences projects at MIT on a variety of topics, including collaborative timelining and annotation; political oral history; data visualisation; and non-linear documentary film. Ruby, PostgreSQL/PostGIS, Javascript, D3.

TUFTS UNIVERSITY Medford, MA
RESEARCHER, PERSEUS PROJECT 2002 — 2003

Developed research tools for historians working in digital archives. Visualisation and data exploration of names, dates, and places in city directories, newspapers, and police blotters. GIS and timeline tools for urban history and demography. Java, PostgreSQL/PostGIS, Javascript, Perl, SGML/XML.

MASSACHUSETTS INSTITUTE OF TECHNOLOGY Cambridge, MA
TECHNICAL DIRECTOR, MIT HYPERSTUDIO 2001 — 2002

Led a team of 4 MIT graduate software engineers in developing a Java and XML/XSLT -based content management platform for social collaboration and classwork centred around video, audio, and digital photo assets. XML markup formats and data representation for humanities text archives. Hibernate, Spring, PostgreSQL, Ant, JavaCC, and XML technologies.

AUSTIN INFORMATION SYSTEMS Austin, TX
SOFTWARE ENGINEER (ARTIFICIAL INTELLIGENCE) 1998 — 1999

Designed and implemented a knowledge-based meta-search engine using lightweight ontologies based on WordNet. Java and Python.

EXPERIENCE (CONT'D)	<p>CYCORP Austin, TX</p> <p>SOFTWARE ENGINEER (ARTIFICIAL INTELLIGENCE) 1997 — 1998</p> <p>Knowledge representation in expert systems. Implemented APIs for federation of distributed expert systems at Stanford and CYC. Research in optimising first order logic propositions, forward inference, and other logic-programming techniques. LISP, Java, and C.</p> <p>CHISHOLM TECHNOLOGIES Austin, TX</p> <p>SOFTWARE ENGINEER (UI) 1997</p> <p>GUI toolkit development in Java.</p>
EDUCATION	<p>YALE UNIVERSITY New Haven, CT</p> <p>M.Phil, 2008; Ph.D. in completion</p> <p>MASSACHUSETTS INSTITUTE OF TECHNOLOGY Cambridge, MA</p> <p>M.S. 2001, GPA 5.0/5.0</p> <p>CARLETON COLLEGE Northfield, MN</p> <p>B.A. 1995, GPA 3.84/4.00</p>
TEACHING	<p>Technical thesis supervisor for</p> <p>“Indexing XML with Relational Tables,” Jeffrey Yu (S.M. Computer Science, MIT '02).</p> <p>“Querying Over Heterogeneous XML Schemas in a Content Management System,” Fabian Morgan (S.M. Computer Science, MIT '02).</p>
PUBLICATIONS & PRESENTATIONS	<p>Christopher York. “Exploratory Data Analysis for the Digital Humanities: The Comédie-Française Registers Project Analytics Tool.” <i>English Studies</i> 98:5 (2017): 459-482.</p> <p>“Rich Facets, Cross-Cutting Views: Towards a New Paradigm of Resource Representation.” <i>Chicago Colloquium on Digital Humanities and Computer Science: What to Do With a Million Books</i>. December 2-3, 2006.</p> <p>Christopher York, Clifford Wulfman, and Greg Crane. “Structure-Aware Query for Digital Libraries: Use Cases and Challenges for the Humanities.” <i>Seventh European Conference on Research and Advanced Technology for Digital Libraries (ECDL-2003)</i>: Trondheim, Norway.</p> <p>Kathleen Lossau, Erik Eilerts, and Christopher York. "Developing A Knowledge Based Index to Distributed, Disparate Data Sources," <i>Fifth ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD-1999)</i>: San Diego, California.</p>
INTERESTS	<p>Programming languages and formal semantics. Type theory and proof assistants. Dependently-typed programming (e.g. Agda & Coq).</p>
SUPPLEMENTARY	<p>I am located in London, UK. Dual citizenship UK & USA.</p> <p>References available upon request.</p>