

# Barnaby James

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## Education

### University of Toronto, BSc - Honours Physics

- Specialization in Quantum Field Theory

## Skills

- Managing a team of 30+ engineers
- C++, Java, Go, JavaScript, Sawzall
- Developing Natural language voice agents
- Ranking photos by quality and topicality
- Statistical pattern recognition, OCR
- Android application and platform development on phones / tablet / wearables
- Experience building scalable indexing and analysis pipelines with MapReduce in Go / C++ / Sawzall
- Extensive development / production oncall experience for large scale distributed services
- Extensive experience with engineering hiring and management
- Due diligence for acquisitions

## Experience

### Google - Senior Staff Software Engineer / Tech Lead Manager

- September 2007 – Present (9 years 2 months)
- Tech Lead Manager - Managing a team of O(30) engineers
- Google Assistant - natural language voice assistant
  - Assistant 3P Developer Platform
  - Home Automation / IFTTT Integration
  - Device Integrations / Android Auto Voice
  - 3P Integrations ([Messaging](#), [OpenTable](#), [Nest](#), [Uber](#), [Android APIs](#))
  - Android [Voice Interaction API](#) ([video](#), [talk at Ubiquity conference](#))
  - [In App Voice Search](#)
- Previously:
  - Travel - photo and attraction ranking for [Google Destinations](#)
  - Authorization and Access control infrastructure for YouTube, Google+, Google Apps sharing
  - Java Experiments Framework
  - Tech lead Google Sites
  - Google For Work / Google Calendar / Google Gadgets
  - Hiring committee member / 150+ interviews / Promotion committee
  - Operations experience running large scale services

## **Adobe Systems - Senior Computer Scientist / Tech Lead**

- September 2001 - September 2007 (6 years)
- Adobe AIR 1.0 - Lead for networking / notifications / multi-monitor support (Top 10 Emerging Technologies of 2008 / MIT Technology Review)
- Tech lead for Acrobat Collaboration
  - Shared Review - collaborative document review workflow using simple network file sharing
  - Synchronizer - disconnection tolerant replication agent
  - Networking support (SOAP, WSDL, RSS + ATOM, REST, ZeroConf, P2P)
- 20% - Internal social bookmarking site used by 1000+ people in the company
- 20% - RSS feed service (filtering, splicing, aggregation)

## **CoVia Technologies / Principle Engineer**

- April 2000 – September 2001 (1 year 6 months)
- Intranet workspaces built in C++ / Java / Server-side Javascript and OODBMS
- Calendar application
- Batch scheduling system
- Subscription credit card billing system
- Migration from server-side javascript to Java

## **Caere Corp (now Nuance) / Staff Software Engineer**

- July 1996 – April 2000 (3 years 10 months)
- Optical Character Recognition (OCR) - Core Technologies group
- Tech lead for Omnipage Pro 10.0 OCR Engine
- Page layout recognition for Omnipage 8.0, 9.0, 10.0
- Noise removal, layout rendering and quality evaluation
- Built online OCR service

## **Cognos Corp (now IBM) / Software Engineer + Intern**

- May 1991 – September 1995 (4 years 5 months)
- Worked on a system for applying a single SQL dialect across heterogeneous RDBMS systems (Oracle, Sybase, Teradata) including cross database joins.

## **Patents**

### **Issued:**

- Searching a database of selected and associated resources / United States 8,190,602
- Distributed computing document recognition and processing / United States 6,742,161
- Method and apparatus for customizing presentation of notification lists / United States 8,244,796
- Document-authorized access to a shared workspace / United States 9166954
- Content review with proxy comment management / United States 9130905
- Selecting photographs for a destination / United States 9076079B1

## **Applications:**

- Intermittent connectivity tolerant replicated document collaboration workspaces / United States US 20140032500 A1
- Destination and point of interest search / United States US 20140279261 A1
- Document-authorized access to a shared workspace Various embodiments / United States US 20160014097 A1

## **Citizenship:**

- United States
- Canada
- United Kingdom