

Barnaby James

Principal Software Engineer / Director

Barnaby James

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Skills

- Applying computer perception, simulation, robotics & machine learning to novel real world problems
 - Managing & growing project teams from 0 to 40 persons
 - Hands on approach to technical leadership, quickly acquiring domain knowledge in real world problems
 - Bridging product, research, hardware / software engineering and industry domain experts to increase project effectiveness
 - Proficient in C++ / Java / Go / Python / Javascript
 - 36 Issued patents focussed on applied machine learning
 - Extensive experience hiring & mentoring software engineers
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Experience

[X \(Google X\)](#) / Principal Software Engineer + Director

March 2017 - PRESENT

- Founded [Tidal X Project](#)
 - Develop strategy / technical approach & manage software project
- Incubated a variety of early pipeline machine learning & computer vision projects focussed on industrial automation
- Focus on problem driven experiment design & success metrics
- Hiring & Promotion committee

[Google](#) / Senior Staff Software Engineer

September 2007 - March 2017

- Tech Lead Manager for Google Assistant / Voice Search
 - Started [Home Automation Actions](#) project
 - Started [Actions on Google project](#)
 - Managed new device integrations team
 - Lead for Third-party integrations
- Google Travel - Photo Ranking / Ranking of landmarks
- Google Workspace
 - TL for Google Sites
 - Apps Infrastructure
 - Google Calendar
- Hiring & Promotion committee

[Adobe Systems](#) / Senior Computer Scientist

September 2001 - September 2007

- Tech lead for Acrobat Collaboration (6.0 / 7.0 / 8.0)
- Networking lead for Adobe AIR 1.0

[CoVia Technologies](#) / Principal Engineer

April 2000 - September 2001

- Collaborative Workspaces
- Scalable Calendar system

[Nuance](#) / Staff Software Engineer

July 1996 - April 2000

- Core Technologies Group
- Optical Character Recognition Engine
- Page Layout & Document Understanding

Education

University of Toronto / BSc Physics Honours

Class of 1996

- Particle Physics Specialization

Patents

Selection of computational agent for task performance / US 10,853,747

Securely executing voice actions using contextual signals to perform authentication / US 10,770,093

Trigger phrase for voice actions of software applications / US 10,741,183

Generating and transmitting invocation request to appropriate third-party agent / US 10,714,086

Processing voice commands based on device topology / US 10,699,707

Voice to text conversion based on third-party agent content / US 10,600,418

Fish biomass, shape, and size determination / US 10,599,922

Fish measurement station keeping / US 10,534,967

Selecting photographs for a destination or point of interest / US 10,510,129

Task initiation using sensor dependent context long-tail voice commands / US 10,490,190

Task initiation using long-tail voice commands by weighting strength of association of the tasks and their respective commands based on user feedback / US 10,297,254

Generating and transmitting invocation request to appropriate third-party agent / US 10,224,031

Securely executing voice actions with speaker identification and authentication input types / US 10,127,926

Voice action biasing system / US 10,089,982

Providing voice action discoverability example for trigger term / US 10,049,670

Developer voice actions system / US 9,922,648

Selecting photographs for a destination or point of interest / US 9,805,428

Voice action biasing system / US 9,691,384

Document-authorized access to a shared workspace Various embodiments / US 9,491,150

Selecting photographs for a destination or point of interest / US 9,483,495

Selecting photographs for a destination / US 9,076,079

Content review with proxy comment management / US 9,130,905

Document-authorized access to a shared workspace / US 9,166,954

Method and apparatus for customizing presentation of notification lists / US 8,244,796

Searching a database of selected and associated resources / US 8,190,602

Distributed computing document recognition and processing / US 6,742,161

Developer voice actions system / EU 3424045

Facilitating creation and playback of user-recorded audio / UK 2559643

Voice to text conversion based on third-party agent content / UK 2557400

Processing voice commands based on device topology / UK 2567067

Facilitating creation and playback of user-recorded audio / EU 3504704

Voice action biasing system / EU 3479374

Securely executing voice actions using contextual signals / EU 3469587

Voice action discoverability system / UK 2551232

Processing voice commands based on device topology / UK 2557404

Citizenship

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- USA
 - Canada
 - United Kingdom