Jason Hutchens

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Profile

Staff engineer, technical leader and AI researcher with three decades of experience, from building award-winning language models in the 1990s to developing LLM-powered systems today. I love learning new things and explaining them to others, which makes me an effective mentor. Passionate about developer experience, and constantly looking to improve team productivity through better tooling and processes. Based in Perth and working remotely; open to interesting engineering, advisory and teaching opportunities.

Notable Achievements

Career highlights spanning AI research, game development and enterprise software.

- Won the Loebner AI Prize in 1996 for best conversational AI.
- Led an AI project that was featured in New Scientist, Wired and the NYT.
- Published at ACL and in IEEE Transactions, and a chapter in *Parsing the Turing Test*.
- Built the scripting system for *Black & White* at Lionhead Studios, and designed AI systems for *L.A. Noire* at Team Bondi.
- Hired, mentored and led engineering teams, including a remote team of up to a dozen.
- Led development and R&D at a technology company that was later acquired for $100M.
- Built core systems powering asset finance for a major client across three countries.
- As a solo founder, built and launched Git Lineage, a commercial desktop app.

Skills

Project management, system architecture, remote team leadership, mentoring and teaching, developer experience, AI/ML, AI-assisted development, technical writing, web development, mobile and desktop apps, performance optimisation, cloud computing, game design.

Technology

Ruby, Rails, Vue, React, Flutter, Rust, Python, C, C++, Go, PostgreSQL, TypeScript, PHP.

Education

Bachelor of Engineering (IT), The University of Western Australia
January 1991 - December 1994

- Achieved straight A+ grades in final year.

PhD (ABD), The University of Western Australia
January 1995 - December 1999

- Developed a sophisticated predictive small language model in C.
- Submitted thesis in 1999, before relocating to the UK.

Employment History

Staff Engineer (Remote), Valiant Finance Pty. Ltd.
August 2022 - Present

- Improved automated test performance by 5x, added autoscaling and read-only follower databases, and built live/demo shard-based autoswitching.
- Introduced state machines, service objects and other best practices; vastly reduced code style violations across the codebase.
- Built bank statement import, parsing, transaction tagging and data extraction.
- Created a plug-and-play framework for integrating with multiple finance provider APIs, with adapters to convert between internal and provider-specific data formats.
- Built an end-to-end pipeline for processing vendor quotes and inbound emails, including data extraction, conversion to internal representations, product identification, enrichment via third-party services and document creation.
- Developed an intelligence framework for running LLMs as part of data enrichment, and adopted AI-first development practices.
- Built core systems powering asset finance services for a major international client across Australia, the US and the UK.

Lead Engineer/CTO (Remote), Robots+Rockets/GroupFire LLC
March 2015 - August 2022

- Managed a fully remote team of up to a dozen developers, designers and QA, establishing async standups, code review processes and video demonstrations of completed work.
- Wrote a data analytics and reporting engine, with a realtime user engagement front-end.
- Implemented code push updates for mobile apps to allow quick rollout of changes.
- Added realtime messaging, video processing and social media monitoring to our product.
- Established and managed a process to quickly onboard new corporate customers.
- The platform powers over 500 communities today, including Goldman Sachs and YPO.

Head of Development/Head of R&D, Agworld Pty. Ltd.
July 2011 - March 2015

- Implemented a dependency-driven event queue to recalculate expensive derived data.
- Wrote a unit conversion extension to ActiveRecord, cleanly separating concerns.
- Designed and implemented a stand-alone sync server for iPad data to replace RhoSync.
- Wrote technical project documentation that led to us winning a cash-cow project.
- Took over a reporting project and helped the team refactor it under intense pressure.

Senior Geophysical Software Engineer, DownUnder GeoSolutions
January 2011 - June 2011

- Returned to the workforce following a six-month sabbatical.
- Worked on well bore visualisation, correlation and mistie correction in Java.
- Made redundant after six months when development was moved to the Chicago office.

Consultant, Titan Interactive
February 2010 - June 2010

- Introduced JIRA, daily stand-ups and weekly project post-mortems.
- Specified and designed an email campaign manager, and oversaw its development in Rails.
- Monitored the production pipeline, finding blockages and optimising processes.
- Improved our throughput from three sites launched per week to almost twelve.

Project Manager, Living Years
March 2009 - May 2010

- Joined six months before a drop-deadline product launch, with no development team.
- Interviewed and hired a development team of three people from over a hundred applicants.
- Planned and executed six two-week sprints with a physical backlog and burndown chart.
- Wrote code and tests and built and managed the continuous integration process.
- Launched on schedule after spending a month in beta testing.

Lead Programmer, Interzone Games
February 2007 - February 2009

- Managed a team of thirteen programmers, while still writing C++ and Python myself.
- Worked with production, art and design to ensure features were technically feasible.
- Assisted QA to properly report, reproduce and prioritise bugs.
- Created the physics engine, gameplay code, various tools and the build system.
- Participated in several "game jams" to prototype new gameplay concepts.

AI Team Lead, Team Bondi (*L.A. Noire*)
October 2004 - February 2007

- Responsible for designing AI technology and implementing the bulk of the design in C++.
- Interviewed, hired, mentored and supervised a team of six developers.
- Oversaw the navigation system, intelligent camera, traffic simulation and NPC behaviour.
- Developed tools to allow game designers to enter and maintain game data.
- Set up an automated build with unit tests, coding standards and software scheduling.

Programmer, Nautronix
January 2003 - October 2004

- Fixed race conditions in unit tests that involved multi-threaded network communications.
- Campaigned for a smarter locking while minimising the side-effects of the current practice.
- Wrote a tool to process, resample and export large volumes of multi-channel audio.
- Designed and implemented a system for managing and monitoring on-site submarine testing, installing and testing the software on location.

Founding Director, Amristar
September 1999 - January 2003

- Built an interactive mapping system for a local real estate business.
- Built a centralised workflow operations system for a chain of car repair centres.
- Entered the Google Programming Contest with a text correlation system written in C.

Chief Scientist, Artificial Intelligence
July 2000 - September 2001

- Designed and implemented language acquisition algorithms.
- Based in Tel Aviv, with regular trips to London where work continued remotely.
- Devised and announced the "Learning Machine Challenge" at the AAAI conference.
- Helped writers generate content for a commercial Siri-like software agent.

Programmer, Lionhead Studios (*Black & White*)
December 1999 - June 2000

- Designed a scripting language for game designers and built a compiler to generate executable bytecode from their pseudo-code scripts.
- Built a multi-threaded stack-based VM to execute the bytecode, with a well-defined API for manipulating game entities.
- Packaged the system as a hot-reloadable DLL with a mocked game interface.

Freelance Developer
June 1997 - September 1999

- Created a novel chatbot engine and sold it to a company in Germany.
- Developed a "kitchen sink" web portal for a South African entrepreneur.

Research Assistant, CSIRO
January 1990 - December 1990

- Wrote programs in QuickBasic and ported legacy programs from Fortran.
- Tested various materials by installing "strain gauges" before subjecting them to destructive tensile forces using specialised equipment.

Side Projects

See jasonhutchens.com/projects for many more.

Founder, Git Lineage
March 2026 - Present

- Designed and built a native desktop app that brings Perforce-style time-lapse blame to git, in C++ with SDL3 and Dear ImGui, working alongside AI coding agents.
- Launched v1.0 in July 2026 with signed builds for macOS, Windows and Linux, offline licence keys and online payments. See gitlineage.com.

Creator, ECS Rails
July 2026 - Present

- Created an open-source Ruby gem that brings the Entity-Component-System pattern to ActiveRecord, with one table per component instead of one per model.
- Published on RubyGems as `ecs_on_rails`, with the source on GitHub and a live demo.

Developer, Retro Game Ports
November 2025 - December 2025

- Ported David Braben's *Lander* to C++ from a commented disassembly of its ARM code.
- Converted Simon Owen's *Augmentinel* from Win32 and Direct3D to SDL and OpenGL, adding macOS and Linux support.

Co-creator, Sesame
February 2022 - May 2022

- Built a password manager in Flutter using libSodium to derive secure passwords from a seed passphrase and service details, eliminating the need to store passwords.
- Launched on Android, iOS and desktop. See sesame.website.

Co-founder, The Punk Collective
March 2021 - December 2021

- Formed a game collective with three friends, shipping one game per month.
- Built and shipped seven games in vanilla C using Raylib, Flecs, cJSON and Nuklear.
- Released on Mac, Linux and Windows.

Contract Developer, Bamboo 61 Pty. Ltd.
April 2018 - August 2018

- Implemented a serverless API using AWS Lambda with Go functions.
- Set up end-to-end React Native app build and deployment to iOS and Android.
- Successfully shipped the beta version of the Bamboo app.

Founding Director, GeekPunk
July 2010 - April 2013

- Developed an innovative text entry technology to replace unwieldy OSKs.
- Launched a static web application with the best Q&As from *Stack Overflow*.
- Started GeekSalt, a small web development studio specialising in restaurant websites.

Founding Director, RocketHands
February 2009 - August 2015

- Started with six former employees of Interzone to pitch an Xbox360 title to Microsoft.
- Launched two titles on the iPhone and one title on the iPad.

Selected Publications

Copies of these papers are available on request. Please see my blog for more writing examples.

- *Language Acquisition and Data Compression*,
  1997 Australasian Natural Language Processing Summer Workshop, 1997.
- *Finding Structure via Compression*, ACL,
  New Methods in Language Processing and Computational Language Learning, 1998.
- *Conversing with Stochastic Language Models*,
  Invited paper for the Third Workshop on Human-Computer Conversation, 2000.
- *A Unique Interplay between the Development of Learning Algorithms and their Education*,
  Modeling Cognitive Development in Robotic Systems, 2001.
- *On Creating a Baby Computer and Training it to Converse*,
  Artificial Intelligence and Applications, 2001.
- *Scripting for Undefined Circumstances*, AI Game Programming Wisdom, 2002.
- *Conversation Simulation and Sensible Surprises*,
  Invited book chapter for Parsing the Turing Test, 2008.
- *Artificial Intelligence as Entertainment: Towards Industry-Relevant Game AI Research*,
  IEEE Transactions on Computational Intelligence and AI in Games, 2011.

Teaching and Speaking

- Tutored at The University of Western Australia.
- Gave invited talks, including the keynote “Pseudo-intelligence as entertainment” at the IEEE Symposium on Computational Intelligence and Games (CIG’08).
- Mentored teams at hackathons.
- Presented internal research talks.

References

See my LinkedIn profile for testimonials from former colleagues; references on request.