# James Baghurst

Oxford
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## EDUCATION

**University of Edinburgh**                                                                          *Edinburgh, UK*
*BA (Hons) Chinese and German*                                                                      *Class of 2021*
- First class degree with distinction in spoken Chinese

## WORK EXPERIENCE

**RemNote**                                                                                          *Remote*
*Founding Frontend and AI Engineer*                                                          *Nov 2021 - Present*
- Responsible for the backend and prompt engineering for all of RemNote's AI projects
- Implemented advanced AI-enabled user interfaces such as RemNote's Flashcard Copilot
- Sole maintainer of RemNote's plugin system and API
- Code ownership over the flashcard system, the core of RemNote's product

## PROJECTS

**Flashcard Copilot**                                                                                *RemNote*
*RemNote's Flashcard writing copilot for students*                                           *Jan 2023 - Present*
- Implemented Copilot-style completions and Grammarly-style correctness checks for flashcards
- Developed RemNote's LLM request backend
- Built extensive prompt evaluation suites to ensure high quality completions
- Minimized latency using streaming and partial JSON parsing

**Open Fresh**                                                                                       *Personal Project*
*Open source, AI-enabled meal planning and shopping.*                                        *Sep 2023 - Present*
- Created an AI agent and UI to design personalized meal plans for users
- Used Selenium to autonomously add groceries to users' grocery website accounts
- Added support for smart ingredient substitution and recipe updates to handle missing ingredients

**TypeScript Type Fixing Agent**                                                                     *Personal Project*
*Open source type error fixing agent for 100k+ line TypeScript codebases*                    *Jan 2023 - Present*
- Automated fixing type errors using an AI agent which makes commits to your GitHub repository
- Added summaries of error fixing attempts so failures still help human coders fix the error
- Utilized TypeScript's compiler API to retrieve type information and provide context to the agent

**AI Popper**                                                                                        *Personal Project*
*Open source chatbot for discussing the works of Karl Popper and David Deutsch*              *Sep 2023 - Present*
- Created text embeddings from YouTube video transcripts
- Used hypothetical document embeddings to improve embedding retrieval quality
- Supported the ElevenLabs streaming API to read responses aloud in the voice of David Deutsch

**Chat with Channel**                                                                                *Personal Project*
*Open source, user-friendly framework for creating YouTube channel chatbots*                 *Sep 2023 - Present*
- Answers provide precise footnote references to relevant clips from the channel
- Minimal configuration required so non-technical users can use it

**Contributions to Modelfusion**                                                                     *Personal Project*
*Open source TypeScript library for building multi-modal AI applications*                    *Nov 2023*
- Added support for SQLite vector search databases

## EXTRA INFORMATION

**Portfolio**: https://bjsi.github.io/
**Twitter**: https://twitter.com/experilearning
**GitHub**: https://github.com/bjsi
**LinkedIn**: https://www.linkedin.com/in/james-b-792114a2/
**Programming Languages**: I am most familiar with TypeScript, React, Node.js and Python
**Languages**: English (native), Chinese (HSK 6)
**Interests**: Weightlifting, Bouldering, Guitar