

# ZACH HAJJAJ

[zachhajjaj.com](http://zachhajjaj.com)

[breue.com](http://breue.com)

[zach@breue.com](mailto:zach@breue.com)

## OVERVIEW

Built 170 products from scratch (start to finish and alone), have advised more than 30 startups on shaping their product and working through difficult technical challenges, and have built a handful of acquired products/startups. I also specialize in natural language processing and have advised and led a few special projects at iconic companies.

## SKILLS

Ruby, Ruby on Rails, Python, Django, MySQL, PostgreSQL, Redis, UI/UX Design, CSS, HTML, JavaScript, jQuery, Node.js, React, Git, Github, Heroku, AWS, RESTful APIs, Product Design, Product Development, Product Prototyping, Product Roadmapping, Algorithm Design, Relevancy Algorithms, Machine Learning, Supervised Artificial Intelligence, Sentiment Analysis, Ontologies, Natural Language Processing, Text Summarization, Image Classification, Image Recognition, FinTech

## EXPERIENCE

### Founder & Engineer - Breue ([breue.com](http://breue.com))

*May 2014 - Present (Washington, D.C.)*

One person dev/product shop, crafting good looking and functional products for entrepreneurs and small startups. Built around 170 products from scratch, going from concept to full-fledge product in relatively short time periods. The two most notable acquired products: <https://breue.com/crumbs-story> and <https://breue.com/twitter>

### Head of NLP & Special Projects - Secureframe

*Oct 2021 - Mar 2022 (Washington, D.C.)*

Led the special projects team. Designed and built an NLP and machine learning engine that could be fed a security questionnaire and return a solid answer for all questions, with a 85 percent precision rate. The system had a confidence score mechanism that would detect which answers generated may not be accurate, and would then display them in an interface for humans to correct or adjust. The answers outputted were a mix of extracted

**EXPERIENCE    Technical Advisor @ Area 120 - Google**

*Aug 2021 - Oct 2021 (Mountain View, California)*

Came up with the architecture for a new experimental peer to peer messaging service. Mapped out a few natural language processing methods that were essential to the user experience. Helped find several work arounds to roadblocks we kept running into.

**Head of Experimental Technologies - Icelandair**

*May 2016 - May 2017 (Washington, D.C.)*

Led several experimental initiatives. Primarily focused on the world's first intelligent messaging bot that would let you book round trip flights with stopovers without having to go back to the browser. Bot was able to intelligently extract the user's intent and tailor each subsequent message of the conversation. It was powered by supervised AI and extensive natural language processing. Designed and built a voice assistant that could handle any set of sentences and return the most relevant flights.

**Software Engineer - Nanobird**

*September 2010 - April 2014 (DC Metro Area)*

Made several relevancy and recommendation technologies. Made an automated version of the Google Knowledge Graph - [https://zachhajaj.com/nanobird\\_relevancy\\_engine.pdf](https://zachhajaj.com/nanobird_relevancy_engine.pdf)

**Founder & Designer - iQase**

*May 2007 - August 2010 (DC Metro Area)*

Industrial design company, making good quality iPhone accessories - <https://dribbble.com/shots/1928756-Lup>  
Went from napkin sketch to a healthy growing company, that was sold by the third year.

**EDUCATION    MIT OpenCourseWare, Computer Science**

*September 2012 - August 2014*

Received mentorship from Ihab Hamadeh (inventor of the Digital Postmark) and several other renowned mathematicians and engineers.