Hello, I'm Ben Zhao

University of Waterloo
Bachelor of Computer Science

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Skills Summary

- **5 years** of industry experience.
- Ability to design and implement solutions to solve complex open-ended problems.
- Strong technical skills with **data structures, algorithms, and concurrency.**
- Experience with various languages and tools including but not limited to **Java, Go, C++, Python**, and **git**.
- Background in topics such as **artificial intelligence** and **machine learning.**

Projects

Neural Evolution of Feed-Forward Neural Networks

- Research paper investigating **neural evolution networks**.
- Researched existing techniques used in structurally evolving neural networks.
- Investigated capacity for such algorithms to learn strategies and learn in real-time.
- Tested different algorithms on a simple task to observe how structures evolve.

Big Brain

- Used **Tensor-Flow** to develop a **recurrent neural network** to generate fake spam emails.
- Created proof of concept for **AI** generated text.
- Additionally, trained AI on tweets to create a tweet generator.

Fun human stuff

I enjoy various styles of dance, snowboarding in winter, boardgames and tabletop games, cooking, and spending time in nature. I'm aware ChatGPT can also make such claims, but it will probably flake on your plans if you try to schedule something.

Software Engineering Experience

Okta   *01/21 - NOW*

- Java developer on team that builds Okta's directory.
- Implemented highly parallelized data processor to handle large volumes of data in new micro-service written in Go.
- Designed new SQL data architecture to improve database read times by 100x.
- Optimized poor performing batch job and improved performance by 1000x.
- Lead developer on design and implementation of groups with dynamic membership evaluation.
- Troubleshoot and resolve urgent issues to maximize customer value.
- Secure platform by validating user-written logic to prevent data leakage.
- Designed permissions model to increase granularity of permission grants to resources managed by team.

Okta   *05/20 - 08/20*

- Built Java data pipeline to get and store data for machine learning models.
- threat detection model to account for new features and more accurately identify malicious actors.
- Researched products and libraries to identify secure and performant ways to parse features from client metadata.

Arctic Wolf Networks   *09/19 - 12/19*

- Developed linux agent in Go which monitors and audits computer activity.
- Used Docker and Make to automate build and package processes.
- Agent enforces persistent firewall rules to selectively block ports and networks.
- Developed, debugged, and deployed code for distributed computing clusters with shared resources.

Capital One   *01/19 - 04/19*

- Constructed a Java library to abstract graph algorithms for Amazon Neptune graph database.
- Applied machine-learning to model customer behaviour using Python and SciKit-Learn to determine feasibility of new features.
- Aggregated millions of data entries to engineer properties that feeds into models.

Imagine Communications   *09/17 - 12/17*

- Full-stack developer for a multimedia ingestion engine.
- Increased UI responsiveness by using asynchronous JavaScript promises to avoid waiting for non-blocking server calls.
- Developed reusable AngularJS components by applying modular design principles to accelerate UI development.

Acronym Software   *05/18 -08/18*

- Developed load simulation software for structural design.
- Increased efficiency by transforming code base to be more modular and reusable.
- Learned multiple versions of C++ to support legacy code migration.