David Song

Eager developer that is critical about coding practices and design choices.

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EXPERIENCE

IBM — *Software Performance Engineer*
MAY 2016 - AUGUST 2017, Toronto ON

- Contributed to DB2 development in C alongside senior engineers
- Investigated DB2 performance regressions using collected data
- Maintained dozens of machines of vastly different specs and architectures, keeping them in service amidst stress testing
- Migrated into a microservices architecture built around a robust API service written in Go, and evolved this API as tools adapted
- Led the development of a dashboard, built in a week in Angular as part of training junior interns, making use of the API service

PROJECTS

ConNextor — *Collaboration platform for students*

- Led the development and operations of the project from its start
- Containerized project using Docker, and deployed on AWS
- Refactored code as project grew over time for better maintainability
- Designed responsive interfaces for every page

Bionavist — *Visualization tool for knowledge graph*

- Extracted relations from academic papers using parse trees
- Built an in-browser graph visualization of these relations
- Designed an interface to easily create additional parse trees
- Refined extraction process by allowing custom rules and verification

Identif.ai — *Social profile in augmented reality*

- Used facial detection and recognition to identify a person
- Created Android app that overlays information on top of camera feed

Jam as a Service — *Music generation based on mood*

- Used speech recognition and sentiment analysis to determine mood
- Experimented with chord generation algorithms to create music

EDUCATION

University of Waterloo

Math and Computer Science
Class of 2019

COURSES

- Operating Systems
- Algorithms
- Combinatorics
- Game Theory

AWARDS

HackAI GM Hackathon
Hackathon Winner

Hack Princeton
Hardware Prize

CASCON Hackathon
Winner of Division

Hack Illinois
Winner of OSS Topic

TOOLBOX

C, C++, Java, JavaScript, TypeScript, Clojure, Go, Python3, Tensorflow, Ruby, Ruby on Rails, DB2, PostgreSQL, Angular, Vue, D3, Gulp, Raspberry Pi