# NICK YOUNG

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## > EDUCATION

• Brown University – ScB. in Mathematics and Computer Science [GPA: 3.93/4.00]

Graduating May 2023

> Relevant coursework: Software Engineering, Computer Systems, Deep Learning, Database Management Systems, Massive Time Series (Graduate), Probabilistic Methods in CS (Graduate), Formal Methods, Programming Languages.

#### > EXPERIENCE

• Bloomberg LP - Software Engineering Intern

June - August 2021

> Incoming Software Engineering Intern at Bloomberg LP.

Stochastic AI – Software Engineering Intern

June – August 2020

- > Designed and built a webapp to deliver hardware-accelerated LDA for scRNA sequencing in React and Python.
- > Managed the web team and set up CI/CD for the website, webapp, and backend with Github Actions, GCP, and Netlify.
- > Engineered the backend microservices architecture from scratch using GraphQL, Docker, Rust, Python, and Javascript.
- Stylindex Full Stack Engineering Intern

June - August 2020

- > Developed an automated GraphQL emailing microservice using Rust, replacing an old, manual email scheduler.
- > Revamped the internal analytics system by building new charts in **React** and tracking API activity with **Rust** and **Python**.

## > TEACHING

· CSCI 1270: Database Management Systems - Head Teaching Assistant

Fall 2021

- > Revamped course to operate in **GoLang**. Wrote assignments, autograders, and reference implementations on topics including SQL queries, query processing, query optimization, B+Tree indices, concurrency, and logging and recovery.
- · CSCI 0220: Discrete Structures and Probability Teaching Assistant

Summer 2021

CSCI 0320: Software Engineering – Teaching Assistant

Spring 2021

- > Developed new Docker, SQL, and accessibility labs and integrated 8 new ethics assignments for a class of 210+.
- CSCI 0190: Accelerated Intro to CS Teaching Assistant

Fall 2020

> Wrote 11 new ethics assignments and coordinated lectures and labs on Discord for a class of 140+. Taught in Pyret.

## > PROJECTS

TSDB [<u>n-young/rust-db</u>]

April 2021

- > Highly performant time-series database built in **Rust**. Supports high-cardinality writing and querying of time-series data. > Leverages boolean logic-based query optimization and lightweight indexing to remain time- and space-efficient.
- OxySAT [<u>n-young/oxysat</u>]

March 2021

- > DPLL-powered SAT solver with heuristics to optimize search, built in Rust. Automated testing oracle built in Python.
- DeepKart64 [n-young/deepkart64]

December 2020

- > Convolutional-reinforcement learning model that plays Mario Kart 64, built using Tensorflow and OpenAI Gym.
- Droppy [n-young/droppy]

July 2020

- > Secure Pastebin-style file sharing service built in **React** and **Rust**, deployed on **GCP**, **AWS S3**, and **Netlify**.
- LinguaML [n-young/linguaml]

January 2020

- > Awarded: Hack@Brown Facebook Prize Best Hack that Builds Community
- > Computer vision-powered language learning app, built with React Native, Google Vision API, and Microsoft Translator.

#### > SKILLS

- Languages & Technologies Rust, Go, Python, Javascript, Java, C, C++, SQL, Docker, React, GraphQL, Git, Alloy.
- Design LaTeX, Photoshop, InDesign, Illustrator, Lightroom, Premiere, After Effects, SolidWorks.
- Interests Photography [portrait, travel, event], Videography, Blogging, Public Speaking, Japanese, Badminton.