

# NICK YOUNG

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## > EDUCATION

- **Brown University – ScB. in Mathematics and Computer Science** [GPA: 3.95/4.00] 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

- **TRustDB** [[n-young/trustdb/](https://n-young/trustdb/)] 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 FST index compression to remain time- and space-efficient.
- **OxySAT** [[n-young/oxysat/](https://n-young/oxysat/)] March 2021
  - > DPLL-powered SAT solver with heuristics to optimize search, built in **Rust**. Automated testing oracle built in **Python**.
- **DeepKart64** [[n-young/deepkart64/](https://n-young/deepkart64/)] December 2020
  - > Convolutional-reinforcement learning model that plays Mario Kart 64, built using **Tensorflow** and **OpenAI Gym**.
- **Droppy** [[n-young/droppy/](https://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/](https://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.