# Nicholas Chaloult

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#### Education

August 2017 — Candidate for Bachelor of Science in Computer Science, Georgia Institute of Technology, Atlanta, GA.

December 2021 • GPA: 3.86/4.00

(Expected) • Threads: Intelligence, Info & Internetworks

### Experience

September 2020 — **Software Engineering Intern**, *Ultimate Software*, Remote.

December 2020 • To be determined

June 2020 — MLH Fellow, Major League Hacking, Remote.

- August 2020 Selected as one of 150 Fellows from a pool of 20,000 applicants to be a member of the Fellowship's inaugural class
  - Used TypeScript and a cross-compilation toolchain to implement functionality in the AWS Amplify CLI that allows users to write, test, and deploy Lambda functions with Swift
  - o Wrote user-facing documentation and guides, as well as developer-facing design documents, with the AWS Amplify team

May 2019 — **Software Engineering Intern**, *DataScan*, Alpharetta, GA.

- August 2019 o Established pattern for new REST API endpoints in a Spring Boot application that perform lightweight existence/authorization checks for subresources
  - o Relocated frequently accessed, but rarely modified, information from an Oracle database to a Redis in-memory cache

January 2018 — Rise Up Undergraduate Assistant, College of Computing, Georgia Institute of Technology, Atlanta, GA.

- Present o Lead weekly webinars and monthly in-person sessions, explaining and demonstrating fundamental computer science concepts to Georgia high school students
  - Helped organize and run the 2018 and 2019 AP Bowl, during which over 300 Georgia high school students took a mock AP Computer Science exam

#### Involvements

August 2019 — **GT Solar Racing**, *Telemetry Team Member*.

- Present o Redesigned an existing two-way telemetry message protocol to support many more types of messages to the car
  - o Maintaining server written in Go that listens for and processes car vitals in real time via a TCP connection
  - o Integrating Grafana visualization tool with InfluxDB to monitor the state of the car as it races

## Personal Projects

Web Application **Codenames**, An interactive implementation of the Codenames board game.

- o Users may create new games and join ongoing ones, and interact with the game board in real time via Websockets
- Wrote a server in Go that manages game states and connections to clients, and persists games to a Postgres database
- o Deployed server and database in containers on Heroku; hosted web application with Firebase

Web Service Kindling, A home for "first Tinder message" ideas that disappear after twelve hours.

- Message suggestions may be posted anonymously, upvoted, downvoted, and flagged as inappropriate
- Wrote a server in Go that exposes REST APIs which facilitate communication with a Postgres database to perform basic CRUD operations
- Cron job periodically purges all message suggestions older than twelve hours from the database

Mobile Application Many Voices for Museums, A more interactive alternative to audio tours in museums and art galleries.

- o Users may filter and search through artwork, and play audio recordings of critics' thoughts about that artwork
- Wrote a React Native application that fetches and displays content from an S3 bucket through the AWS SDK for Node.js

Web Application **Friendly Competition**, Compares a League of Legends player's recent in-game performance with that of their friends.

- o Aggregates and visualizes hallmark in-game statistics for four players, letting them compare themselves to each other
- o Wrote a Node.js application to fetch and analyze in-game performance data from HTTP APIs
- · Used JavaScript and React to build a web front-end that displays those results with Chart.js

#### Skills and Attributes

Languages TypeScript, JavaScript, Go, Java, Python, Swift, HTML, CSS

Frameworks React, Redux, React Native, Express, Spring, Jest

Tools Git, Docker, Travis CI, JIRA, Confluence, LATEX

Technologies GNU/Linux, Amazon Web Services, Node.js, PostgreSQL, Grafana, InfluxDB, Redis