Nicholas Chaloult

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Education

August 2017 — December 2021 (Expected)

Candidate for Bachelor of Science in Computer Science, *Georgia Institute of Technology*, Atlanta, GA.

- GPA: 3.86/4.00
- Threads: Intelligence, Info & Internetworks
- Relevant Coursework: Algorithm Design and Analysis, Database Technologies, Machine Learning, Computer Networking, Systems and Networks, Game AI, Intro to Info Security, Intro to Artificial Intelligence, Computer Organization

Experience

September 2020 — December 2020

Software Engineering Intern, *Ultimate Software*, Remote.

- To be determined
- Will be using **C#** to contribute to an application built with **ASP.NET**

June 2020 — August 2020

MLH Fellow, *Major League Hacking*, Remote.

- 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**
- Wrote user-facing documentation and guides, as well as developer-facing design documents, with the AWS Amplify team

May 2019 — August 2019

Software Engineering Intern, *DataScan*, Alpharetta, GA.

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

January 2018 — Present

Rise Up Undergraduate Assistant, *College of Computing, Georgia Institute of Technology*, Atlanta, GA.

- 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 — Present

GT Solar Racing, *Telemetry Team Member*.

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

Personal Projects

Web Service — Ongoing

Kindling, *A home for "first Tinder message" suggestions that disappear after twelve hours*.

- Message suggestions may be upvoted, downvoted, and flagged as inappropriate
- Writing a server with **Go** that exposes **RESTful APIs** which perform CRUD operations for data in a **Postgres** database
- **Cron job** runs periodically, purging all messages suggestions older than twelve hours from the database

Discord Bot

HMM Mutterer, *Generates messages of the same vocabulary and sentence structure as a corpus*.

- Uses a **hidden Markov model** created from a customizable corpus to produce messages in a Discord text channel
- Used **Go** to implement a content generation model, and to build a bot which parses commands from users and posts messages
- Wrote a comprehensive **unit and integration test suite**. Deployed a **Docker image** to **Heroku's container registry**

Mobile Application

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

- 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*.

- Aggregates and visualizes hallmark in-game statistics for four players, letting them compare themselves to each other
- Wrote a **Node.js** application to fetch and analyze in-game performance data from RESTful 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
Technologies	Git, Docker, Amazon Web Services, Node.js, GNU/Linux, PostgreSQL, Grafana, InfluxDB, Redis