

Nicholas Chalout

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Education

- August 2017 — **Candidate for Bachelor of Science in Computer Science**, *Georgia Institute of Technology*, Atlanta, GA.
December 2021 (Expected)
 - GPA: 3.86/4.00
 - Threads: Intelligence, Info & Internetworks

Experience

- September 2020 — **Software Engineering Intern**, *Ultimate Software*, Remote.
December 2020
 - To be determined
 - Will be using **C#** to contribute to an application built with **ASP.NET**
- 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**
 - 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
 - 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 — **Rise Up Undergraduate Assistant**, *College of Computing*, *Georgia Institute of Technology*, Atlanta, GA.
Present
 - 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
 - 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 Application **Codenames**, *An interactive implementation of the Codenames board game.*
 - 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
 - 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
 - A **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.*
 - 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 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, L^AT_EX
Technologies GNU/Linux, Amazon Web Services, Node.js, PostgreSQL, Grafana, InfluxDB, Redis