ohadrau@yahoo.com
(678) 818-2602

Ohad Rau

http://ohad.space
US/Israel Dual Citizen

EDUCATION

Georgia Institute of Technology — Atlanta, GA

B.S. in Computer Science, Major GPA: 4.0 — *Aug 2018 – May 2021*

- **Concentrations**: Computer Architecture & Embedded Devices
- **Selected Coursework**: Data Structures & Algorithms, Computer Organization, Objects & Design

EXPERIENCE

Google — Sunnyvale, CA

Software Engineering Intern — *May 2019 – Aug 2019*

- Acted on open-source projects' needs (e.g. LibSass) to design scalable solutions for creating WebAssembly libraries
- Created JavaScript ↔ WebAssembly bindings generator to enable the use of native C libraries in Node.js
- Coordinated efforts with members of the Node community to add WebAssembly support for Node's N-API
- Building support for interacting with WebAssembly programs in the V8 JavaScript Engine's API

Rolltrax — Atlanta, GA

Founder, Software Engineer — *Nov 2017 – Present*

- Designed and implemented a system to meet the needs of Work-Based Learning classrooms across Georgia
- Created attendance management system for student interns, utilized by North Springs High School since 2018
- Decreased average server latency by 86% and increased server throughput by 530% while adding new features
- Designed user-customizable dashboard for teachers to monitor attendance analytics and statistics

PROJECTS

- **Risk**: Worked with team of 5 to create an online, multiplayer version of the Risk board-game using WebSockets for real-time gameplay. Backend written in Scala + Play + Akka and frontend in JavaScript + Vue.
- **GBA 8 Ball**: Implemented an 8 ball pool game for Game Boy. Simulated accurate physics using fixed-point math and a tool to generate lookup tables. Written in C and ARM assembly.
- **Revery**: Serving as a major contributor to Revery, a GUI framework for ReasonML attempting to bring Electron's ease-of-use to a native, cross-platform environment.
- **Quartz**: Designed and began implementation of a programming language for concurrent programming, targeting the Erlang/BEAM Virtual Machine and utilizing a novel algorithm to infer and type-check session types in distributed message-passing programs.

EXTRACURRICULARS

- **HackGT Operations Team**: Worked with small team to plan and execute educational workshops. Participating in the curriculum design for the HackGT 6 hackathon.
- **North Springs Hack Club**: Served as president for 2 years, focusing on teaching Scheme and JavaScript programming and successfully planning our first-ever SpartanHacks 24-hour hackathon in April 2018.
- **Future Business Leaders of America**: Competed at national and state levels for a variety of technology-based events and served as club treasurer during senior year. Helped grow our chapter to over 400 members, bringing it to Big 10 status in the Southern Region as well as Gold Seal status nationally.

AWARDS

- **FBLA Coding & Programming**: Received 1st place in Georgia for a "family entertainment center" application built to manage payroll, employee data, and customer statistics using F# and WPF.
- **FBLA Desktop Application Development**: Received 2nd place at Nationals for an F# application designed to help store and manage FBLA chapter records.

SKILLS

Languages: OCaml/Reason, Java, Ruby, F#, C#, Scheme, JavaScript/ES6, C, Haskell, Python, Scala, x86 Asm, C++
Technologies: Functional Programming, OOP, Linux, Node.js/V8, SQL (Postgres, SQLite), WebAssembly, Git, Z3
Interests: Compiler Design, Systems Programming, Quantitative Finance, Hip-Hop, Cooking