Timothy J. Aveni

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Education

Georgia Institute of Technology *Atlanta, GA* **August 2016 – May 2019**

- Bachelor of Science in Computer Science, 4.0 GPA
- Head Teaching Assistant, Data Structures and Algorithms (CS 1332)
  "aghhhh love tim!!!! 10/10 would recommend" (source: Fall 2018 anonymous course evaluation)
  - Managed 30 teaching assistants and 600 students per semester
  - Developed and taught lectures, designed and administered exams, assisted with creating materials for online course

Experience

Facebook - Software Engineer - Misinformation Transparency *Menlo Park, CA* **June 2019 – present**

- Work full-stack on products that educate Facebook and Instagram users about fact-checks for false information
- Designed and implemented a caching framework to handle the load of trillions of requests per day
- Maintain and improve central backend product code, used to aggregate and present fact-checks across the platform
- Enhance data quality and leverage logging to inform product decisions and discover anomalies

Facebook - Software Engineering Intern *Menlo Park, CA* **Summer 2017, Summer 2018**

- During two internships, used Hack/PHP, Flux-backed React, and GraphQL with Relay
- Enhanced Facebook's video encoding infrastructure, resulting in an order-of-magnitude speedup in multiple product flows

Georgia Tech Contextual Computing Group - Research Assistant *Atlanta, GA* **January 2017 – May 2019**

- Designed a series of studies to explore teaching computer stenography skills through passive haptic stimuli
- Built hardware, firmware, and software, start to finish, to power and analyze dozens of user trials
- T. J. Aveni, C. Seim and T. Starner, "A preliminary apparatus and teaching structure for passive tactile training of stenography," 2019 IEEE World Haptics Conference (WHC), Tokyo, Japan, 2019.
- T. J. Aveni, "Passive Haptic Learning for Computer Stenography," 2019. Undergraduate Thesis.
- C. Seim, R. Pontes, S. Kadiveti, Z. Adamjee, A. Cochran, T. Aveni, P. Presti, T. Starner. "Towards Haptic Learning on a Smartwatch," ISWC '18. ACM, New York, NY, USA, 2018.

Projects

Bolt **September 2017 – May 2019**
Grading assistant software in Electron for CS 1332 teaching assistants

- Built a grading tool with a powerful interface in React, Redux, and Java
- Used static and dynamic code analysis to analyze student submissions
- Designed an extensible plugin framework for automatic point deductions
- Developed and integrated a submission-compiling bot to alert students of broken submissions on Canvas before the deadline

Wavelyric **July 2016**
Web-based tool for mapping song lyrics to a karaoke track

- Developed a fast, open-source canvas waveform rendering library in JS
- Resolved an unmet $3,000 Kickstarter stretch goal by developing this tool

Cookie Externalities **April 2016**
Multiplayer game and learning experience for a Microeconomics class

- Designed and built an AngularJS UX for a competitive market simulator
- Wrote a Node.js server that supported real-time concurrent connections
- Used the game to teach the impacts of externalities in a free market

PluckLock **November 2014 – December 2014**
Android app that locks the device when it is snatched from the owner

- Developed the app in Java and XML with the Android SDK
- Published to the Google Play store (300+ installs) and F-Droid

More projects and information available at timothyaveni.com

Skills

Languages

JavaScript (ES2019), HTML/CSS3, Java, Python

Technologies

Node.js, Express, React, Redux/Flux, Reselect, jQuery, Web Audio API, Socket.io, Flow

Spoken Languages

English (native), French (conversational)

Involvement and Recognition

- Cold Case Act **May 2016 – May 2019**
  Technology, Public Relations
- CTL Thank a Teacher **Dec. 2018, May 2019**
- HackGT **January 2018 – May 2019**
  Organizer, Curriculum writer, Workshop presenter
- Google Games ATL **2017, 2018**
  First place!
- Pearl Hacks, HackGTeeny **2017**
  Mentor