

## Education

University of Texas at Austin, Class of 2019, Fourth Year, BSA Computer Science, BA Music - Classical Guitar

- **Polymathic Scholars Honors**
- Cumulative GPA: **3.68**

## Coursework

Artificial Intelligence (H), Computer Music, Algorithms and Complexity Theory, Data Management, Computer Science Policy Honors (H), Programming Languages (H), Operating Systems (H), Linear Algebra, Computational Evolution Research Lab, Computer Architecture (H), Data Structures, Discrete Math (H), Probability and Statistics

## Work Experience

- **Facebook** – *Summer 2018* – developing a pipeline and GUI for regression detection and metric population adjustment. Participating in company hackathons for new user-facing features.
- **Audible Software Development Engineer Intern** – *Summer 2017* – Worked to integrate model-based testing with an existing manual test case framework and report statistics using elastic stack. Hosted educational events so that the new workflow could be widely adopted. (Java, AWS ELK, Graphwalker)
- **Undergraduate Researcher** – *Spring 2017* – Worked in the Integrative Biology department helping streamline a bacteria speciation process. Position included extensive redesign of an existing process to make it lightweight, web-ready, and distributable. (Python, AWS, OpenMPI) **Publication:** DOI: 10.1093/bioinformatics/bty400
- **Union Pacific Technical Intern** – *Summer 2016* – Collaborated to produce a predictive costing system.
- **Program Counselor at Philmont Scout Ranch** – *Summer 2015* – Utilized problem solving and communication skills to lead program in a living history. Impacted the experience of over 6,000 scouts.

## Projects

- **Sonata Generator** (Java) – *Spring 2017* – Designed and implemented an expert-system algorithm that generates a piano sonata. (think early Mozart) [www.brianellisound.com/sonata](http://www.brianellisound.com/sonata)
- **Executive Dashboard: First Place Hackathon Project** (AngularJS, HTML) – *Summer 2016* – Developed a display of Union Pacific system metrics comparing the current health of the network against geographically situated historical data. Collaborated in a 24 hour period with two partners.
- **“Make It Rain”** Chrome Extension (JavaScript, HTML, CSS) – *Spring 2014* – RSI Game involving graphic design and usage of several Chrome APIs. At height of usage, **over 120,000 users**.

## Technical Skills

- Java, Python, SQL, AngularJS, NodeJS, React, HTML, BASH, C, C++

## Leadership

- **Eagle Scout** – *2012*, **Vigil Honor Member** – *2012*
- **Alpha Phi Omega: Merit Badge University (MBU) Coordinator** – *2016* – Charged with organizing the largest MBU in the country, annually attended by over 1400 scouts from Texas and beyond. Managed a budget of \$24,000.
- **Order of the Arrow: Lodge Chief** – *2013 to 14* – Top youth position in the 15-county Central Texas area. Responsible for all program and service functions, and representation to higher-level assemblies.

## Musical Experience

- Classical Guitar: *2001 to present* – Matthew Gillen, prev. Celil Refik Kaya, Chad Ibison, Slobodan Vujisic
- Founding Member of Burnt Orange Bluegrass, a student bluegrass music group on the UT campus.
- Member of the UT Steel Pan Ensemble – *Spring 2015 - Present*