# Brian Ellis

#### Education

University of Texas at Austin: Third Year, BSA Computer Science, BA Music - Classical Guitar

- Polymathic Scholars Honors
- Cumulative GPA: **3.63**

### **Computer Science Courses**

- Completed: Data Management, Policy and the New Technologist 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
- In Progress: Algorithms and Complexity Theory

# Work Experience

- Union Pacific Technical Intern Summer 2016 Collaborated to produce a new predictive costing system. Worked with business partners to gather requirements, report progress, and refine the product. (AngularJS UI, Java server, SQL data sources)
- **Program Counselor at Philmont Scout Ranch** *Summer 2015* Utilized problem solving and communication skills to lead program and educate customers in a living history format while operating in a team setting in a very remote location. Impacted the experience of over 6,000 scouts and scouters.
- **Theater lighting** *Current* Providing lighting and sound services for professional musical and dance performance groups. (ETC, EOS, and Strand boards, MagicQ)

# **Projects**

- 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.
- **Algorithmic Composition** (Java) *Spring 2016* Used statistical models to generate classical music following traditional musical idioms, chord progressions, and voice leading principles.
- Linux-like OS (Mostly C, C++, and X86) Fall 2015 A little better than DOS.
- "Make It Rain" Chrome Extension (JavaScript, HTML, CSS) *Spring 2014* RSI Game involving graphic design and usage of several Chrome APIs. Over 60,000 weekly users.

#### **Technical Skills**

- Proficient with Java, AngularJS, HTML, SQL, C, C++, Python, as well as version control (git, svn)
- Actively learning Neo4J, noSQL, BASH scripting, REST server implementations (Spring, Flask)
- Exposure to VeriLog, X86 assembly, and process aid tools (grunt, maven, npm)

#### 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 Celil Refik Kaya, previously Chad Ibison and Slobodan Vujisic
- Founding Member of Burnt Orange Bluegrass, a student bluegrass music group on the UT campus.
- Guitarist in the Austin Classical Guitar Society's Community Ensemble: Spring 2016
- Member of the UT Steel Pan Ensemble Spring 2015 Present