

# LEON LEI

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## EDUCATION

**Brown University** (Computer Science Sc.B., pursuing a 4-yr Concurrent Masters) **May 2020**

- **GPA:** 3.86 (Degree) / 3.75 (Cumulative)
- **Relevant Coursework:** Artificial Intelligence, Deep Learning\*, Intro to Software Engineering, Creating Modern Web Apps, Programming Languages\*, Intro to Computer Graphics, Intro to Computer Systems, Collaborative Robotics, Accelerated Intro to CS (Data Structures, Algorithms and Analysis), Statistical Inference, Discrete Structures & Probability, The Matrix in CS (Linear Algebra), Multivariable Calculus Honors, Biotechnology in Medicine\*, Intermediate Microeconomics (Mathematical) \* in progress

## TECHNICAL SKILLS

- **Programming:** Java, Python, JavaScript (ES6), C, C++, C#, R, Pyret, TensorFlow, MATLAB
- **Web Technologies:** HTML, CSS, Node.js, React.js, SQL, MongoDB, AWS S3 and EC2
- **Other Technologies:** Windows, Linux/Unix, Unity, RStudio, R Shiny, D3.js, Eclipse, Android Studio

## EXPERIENCE

**Artificial Intelligence UTA**      **Brown University CS**      **Providence, RI**      **08/2018 - 12/2018**

- Work closely with the other TAs and professor to revamp course materials and assignments
- Help students at weekly hours and on Piazza with conceptual questions and debugging in **Python**

**Data Science Intern**      **Roche – Genentech**      **New York, NY**      **05/2018 - 08/2018**

- Used **R Shiny** and **D3.js** to develop an advanced visualization tool for patient journey analysis
- Processed large amounts of real-world patient data, producing optimizations in R with ~40x speedup
- Assisted researchers in generating visualization trees for an XGBoost machine learning use case
- Presented work via teleconference to Roche's global leaders in real-world data and visual analytics

**Research Intern**      **University of Miami**      **Coral Gables, FL**      **05/2017 - 07/2017**

- Played a valuable role in the lab's activities and influenced direction of the project's development
- Used **C#** and **MATLAB** to develop tools for the processing and visualization of the lab's research data
- Authorship on presentations given at conferences/meetings in Philadelphia, Norwich, Amsterdam, etc.
- Poster: [goo.gl/25aZvG](https://goo.gl/25aZvG) | Code: [github.com/leibo123/social-networks](https://github.com/leibo123/social-networks)

**Other:** Tech Support Assistant, Chinese School TA, Lifeguard, Summer Camp Counselor

## LEADERSHIP/ACTIVITIES

- Secretary of Brown Chinese Students Association (2018-present) – *forms/sheets, notes, planning, etc.*
- Programmer in Brown-RISD Game Developers (2017-present) – *programming with C# in Unity*
- Treasurer of Brown Go Association (2017-present) – *secure funds for organization, planning, etc.*
- Violinist in Brown Chamber Orchestra (2016-present) – *also play with friends in a separate group*
- Lifestyle Writer for Post- Magazine (2017) – *the Brown Daily Herald's arts and culture magazine*
- Brown Learning Exchange Facilitator (2017) – *volunteer to teach local middle school students CS*

## PROJECTS

- **ABOT Website Redesign** ([abotdatabase.info](http://abotdatabase.info)) – for Brown's Humanity Centered Robotics Initiative
  - worked with a team of Brown/RISD students; chief role in maintaining communication with clients
  - used **Node.js** and **MongoDB** for back-end, **HTML/JS/CSS** for front-end and **AWS** for deployment
  - improved and implemented many new features and continue to manage/update the site
- **PickPoker** – a multiplayer poker web app with custom game rules developed in **Java** and **JavaScript**
- **Granny and Squirtsworth** – a puzzle platformer developed in **Unity** with Brown-RISD Game Developers
- **ROS-enabled Teleoperation with the Microsoft HoloLens** – research project on robot to AR interfacing
- **SwipeDaddy** – concepts/prototype of a meal-sharing social app developed at Hack@Brown 2018
- **SnapHistory** – concepts/prototype of a location-based social app developed at Hack@Brown 2017

## AWARDS/HONORS

- Mu Alpha Theta (Math Honor Society) Scholarship (2016) – awarded to ~50 students in the US
- American Go Foundation College Scholarship (2014) – awarded to 2 students in the US