Max Mines

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EDUCATION

Brown University, B.A. Computer Science & B.A. Cognitive Science *4.0/4.0 in-major GPA* 2016-2020

Relevant Courses: Software Engineering, Computer Systems, Computer Vision, Machine Learning, User Experience/User Interfaces, Honors Linear Algebra, Statistical Methods, Language Processing, Compositional Semantics

TECHNICAL SKILLS

Java, Python, C, Scala, OCaml, JavaScript, React, Scheme, SQL, HTML/CSS, GitHub, Adobe XD, Figma

PROFESSIONAL EXPERIENCE

Sana Labs, *Software Engineering & Linguistics intern* Summer 2019

- In Python, designed and implemented remediation system for a speech pronunciation product aimed at English learners. Feature ships with Sana Voice API, used by client Pearson Education with over 5k students.
- In React, maintained web demo for Sana Voice (voice.sanalabs.com) and created prototype products to showcase the API.

University of Pennsylvania, Prof. Ani Nenkova, *Research assistant* Summer 2018

- In Python, created HealthLit, a search engine that uses Natural Language Processing to intelligently organize medical literature from clinicaltrials.gov.
- Used “Semantic Role Labeling” & medical taxonomy SNOMED to solve design challenges.
- Findings later published by Association of Computational Linguistics.

University of Pennsylvania, BabyLab, *Research assistant* Summer 2017

- Worked with chair of psychology department, Daniel Swingley, to research how infants learn language.
- Led “language-guided looking experiments” on subjects and designed visual and auditory test queues.
- Used R to visualize and analyze newly-acquired data of 70+ participants across 4 studies.

PROJECTS

Sheet Music to MIDI converter, written in Python May 2019

- Converts JPEG image of sheet music to digital representation using image correlation, Hough Lines Transform, and CNN.
- Plays aloud handwritten music instantly.

Maps, written in Java and JavaScript April 2019

- Inspired by Google Maps, web-based GUI displays real street data from greater Providence area.
- Finds routes between two locations using A* algorithm.
- Uses self-implemented trie for street-name autocomplete and k-d tree for GUI’s click-to-select feature.

Image Local Feature Matching, written in Python February 2019

- Implements algorithm that matches local features between multiple images of real-world scenes.
- Modeled design after David Lowe’s SIFT key point detector.

Search Engine for Wikipedia, written in Scala March 2018

- Reimplements Google’s PageRank algorithm in a search engine allowing users to query a large collection of Wikipedia pages with instant results.

EXTRACURRICULARS

Brown Club Squash

- Led multiple team practices per week, traveled to play away matches, and organized open sessions to teach new players.

Brown University Jazz Big Band, *Bassist*

- Performed 4 concerts per semester and toured with group internationally.
- Organized and MC’d weekly music soirées open to all types of creative music.

SKILLS & INTERESTS

French, *Level C1 Proficiency*

- Studied Fall 2018 at Sciences Po in Lyon, France. All courses taken in French.

“Language Please”, *indie music project*

- Independently wrote, recorded, engineered, and published two EPs available on Spotify and Apple Music with 5k+ streams.
- Manage all aspects of branding and perform multiple shows per month backed by a band.