

Jason Pereira

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EDUCATION

University of Illinois at Chicago - Master of Science in Computer Science; GPA: 3.7 **May 2023**
Visual Data Science, Principles of Concurrency, Compilers, Operating Systems, Neural Networks, Databases, Object Oriented Languages, Software Engineering

University of Mumbai, India | Bachelor of Engineering in Computer Science **Jun 2018**

TECHNICAL SKILLS

- **Languages:** JavaScript, Java, Python, Scala, HTML, CSS, SQL, OCaml, C, C++
- **Technologies:** Vue, Vuex, React, Redux, Node.js, Express JS, D3, Three.js, Git, REST, Django, Kafka, Docker
- **Skills:** UI/UX design, data visualization, full stack development, compilers, concurrency, databases, APIs, Amazon Web Services

WORK EXPERIENCE

Software Engineering Intern | Tavus, Chicago **May 2022 – Aug 2022**

- **Zapier Integration:** Integrated the Tavus platform with Zapier by building a custom Zapier App which enabled the platform to **connect with over 5000+** apps. Modules designed: authentication, triggers and actions.
- **Tavus Platform:** Engineered REST APIs, data models, React components and Firebase authentication for the Tavus platform.

Graduate Teaching Assistant | University of Illinois at Chicago **Sept 2021 – May 2022**

- **Autograder:** Conceptualized and developed an autograder with unit tests for CS 211 using the GoogleTest C++ testing framework which automated assignment grading.
- The autograder **saved 150+ man-hours over the course of the semester.**
- **Programming with MATLAB:** Conducted lab sessions, graded assignments, and conducted oral examinations for **200+ undergraduate students.**

Software Engineer | Zaya Labs **Nov 2020 – June 2021**

- **Headroom:** Collaborated with in-house designers to rebuild the user interface of the internal data management tool at Headroom by building a new SPA written in VueJS.
- **REST APIs:** Reduced initial page load **time from 4 seconds to 1 second** by writing custom serializers to improve Django REST API performance.

Software Engineer | Vistaar Technologies **July 2018 – Sept 2020**

- **Dashboard Framework:** Designed multiple features of an in-house Dashboard Framework including a JSON editor, runtime APIs, filesystem and editor intellisense using Vega-Lite that reduced the total time required to develop and release custom client solutions **by over 100 hours per quarter.**
- **Vistaar WebUI Framework:** Designed and implemented UI components which were used by more than 50 engineers spread across multiple internal teams.

PROJECTS

Java Multi Version Execution | Systems Research Group, UIC **Sept 2022 – Present**

- JavaMVX synchronizes state between two concurrently running versions of a program and falls back to the older version in case of a divergence. **Reduced execution time of benchmark test suite by 60%** by optimizing file reads and inter-process communication.

Interpreter for Domain Specific Language in Scala | University of Illinois at Chicago **Jan 2022 – May 2022**

- Implemented an interpreter for a Java like language for set theory featuring classes, inheritance and functions written in Scala.

Visualization of Gun Deaths in the US | University of Illinois at Chicago **Sept 2022 – Oct 2022**

- Interactive visualization of gun related deaths in the US built using D3, Vue.js and JavaScript.
- Added filters for state, age group, gender, and city.
- Displays important statistics like distribution by gender and age group.

Visualization of Physically Unclonable Function Data | University of Illinois at Chicago **Sept 2022 – Present**

- Designed a visualization tool to test and confirm the hypotheses presented in the paper APUF Faults: Impact, Testing, and Diagnosis; Yeqi Wei, Tim Fox, Vincent Dumoulin, Wenjing Rao, Natasha Devroye, Department of Electrical and Computer Engineering, University of Illinois at Chicago.

Twitter Clone **Nov 2020 – Dec 2020**

- Designed a clone of the web interface of Twitter built using Vue.js.
- Replicated the design, styling, CSS animations and after-effects of the Twitter website UI.