



Warren, NJ



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LAREINE JENG

PROFESSIONAL EXPERIENCE

C2 Education

Chatham, Livingston, Gillette & Denville, NJ

Computer Science and Statistics Teacher

2017 - Present

- Teach college-level Java course and a statistics course to students from the most competitive schools in New Jersey.
- Frequently travel across centers in North and Central Jersey to teach and perform administrative tasks such as auditing business data.
- Scored 97% and 93% on C2 pre-employment exams on statistics and computer science respectively.

Recurse Center

New York, NY

Programmer

2016

- Participated in a full-time sabbatical for programmers.
- Conducted and presented research on ethical engineering, the design and construction of an ethical framework for autonomous machines through data mining and other quantitative methods.
- Implemented advanced binary search tree (BST) functions in Python that could construct a balanced BST from a set of keys, convert a BST to a circularly doubly linked list, reconstruct a BST from a preorder or level order traversal, and find two swapped nodes in a pseudo-BST.

Technical Skills: Java, C, JavaScript, Python, HTML/CSS

Professional Affiliations: IEEE Big Data Community, Rising Stars Networking Group

PROJECTS

Auto Auditor

- Wrote a JavaScript program that sorts billing events in chronological order and then uses binary search to find billing errors in business data in C2 Education's Smart2 system.
- Significantly sped up the process of auditing business data and improved accuracy.

Self-Driving Vehicle Simulator

- Developed a model based on millions of data points that appraises a subject's life based on the subject's demographic information, situational physical position, and behavior to use in life-or-death situations where a self-driving vehicle must value one set of lives over another.
- Wrote a Python script that automates simulations based on this model.
- Presented the research that led to the development of this simulator at the Recurse Center in two presentations titled "Ethical Engineering" and "A Moral Decision-Making Algorithm for Self-Driving Cars."

Advanced Add Reminder for Google Sheets

- Wrote a JavaScript program that works with a complex project management spreadsheet that sends an email reminder to team members two days before an assignment is due.
- Added additional functionality that updates the spreadsheet to show that an email was sent, CC's the email to the coordinator, and maintains a file of all emails sent.

EDUCATION

Cooper Union, New York, New York

Civil Engineering

- Full merit-based scholarship

Webb Institute, Glen Cove, New York

Naval Architecture & Marine Engineering

- Full merit-based scholarship
- Fischer Dunderberg Scholarship
- Dean's List

Relevant Coursework: Advanced Computer Applications, Programming with Applications, Introduction to Computing for Scientists and Engineers, Introduction to Computer Science, Interactive Multimedia, Web Design

Academic Honors: National Merit Commended Scholar, 800 on SAT Mathematics Award