

# Eileen J. Choe

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## EDUCATION

**University of Pennsylvania**, School of Engineering and Applied Science, Philadelphia, PA Dec 2019  
Master of Science in Engineering in Computer and Information Science | **Cumulative GPA:** 3.67 / 4.00

**Loyola Marymount University (LMU)**, Seaver College of Science and Engineering, Los Angeles, CA May 2018  
Bachelor of Science in Computer Science | **Cumulative GPA:** 4.0 / 4.0  
Minor in Applied Mathematics, University Honors Program  
**Awards & Scholarships:** LMU Presidential Citation (2018), Frank R. Seaver College Math and Science College Scholar (2018), University Honors Program Scholar (2018), LMU Presidential Scholarship Recipient (2014-2018)

## EXPERIENCE

**University of Pennsylvania** - Philadelphia, PA

Online Learning Course Development Assistant (Database and Information Systems - CIS 550) Jan 2020 - Present

- Leading the auto-grading infrastructure development for new online graduate-level database course on Coursera.
- Writing and filming lectures for web app development content, covering JavaScript, Node.js, and AngularJS.

Head Teaching Assistant (Database and Information Systems - CIS 550) May 2019 - Dec 2019

- Led weekly recitations, gave a guest lecture on web application development, and managed a team of 15 TAs.
- Programmed a query optimization leaderboard assignment, which used Amazon RDS.

Graduate Research Assistant

Aug 2018 - Aug 2019

- Adapted an academic relational database system written in Java to support data streams with annotations for use in health sensor research. Advised by Prof. Susan Davidson and Prof. Zachary Ives.

**Blue Origin** - Kent, WA

Software Engineering Intern

Jun 2018 - Aug 2018

- Developed time series visualizations using D3.js, which interfaced with Kafka stream system to analyze flight data.
- Prototyped a JavaScript-based visualization library that generates custom dashboards from a JSON specification.

Software Engineering Intern

Jun 2017 - Aug 2017

- Built a dashboard using Angular, CSS, and HTML with redux client-side state management to support part serial number tracking in an internal web app used for rocket development and manufacturing.

**NASA Jet Propulsion Laboratory** - Pasadena, CA

Electrical Engineering Intern

Jun 2016 - Jan 2017

- Wrote MATLAB scripts to automate data cleaning and visualization for a thermopile detector aging study.
- Supported Parts Engineering group in parts list management and analysis and test lab cost forecasting.

## RECENT PROJECTS

**“GoogleLite” Search Engine**

Co-architected system design for a cloud-hosted, distributed search engine, which consisted of a crawler, indexer, and web front-end. Developed a distributed web crawler hosted on AWS EC2, which crawled a corpus of 1 million unique documents. This was a group project for Internet and Web Systems (CIS 555, UPenn Fall 2019).

**Selenium Test Automation for a AngularJS / Node.js / Express Web App**

Built a test framework using Selenium WebDriver, Mocha, and Docker, that fully automated the grading of a web app programming homework for Database and Information Systems graduate course.

## PUBLICATIONS

Ray Toal, Rachel Rivera, Alexander Schneider, and **Eileen Choe**. 2016. Programming Language Explorations. Chapman & Hall/CRC.

## TECHNICAL SKILLS

- Programming Languages: Proficient - Java, Python, JavaScript; Familiar - MATLAB
- Web Technologies: Proficient - JavaScript, HTML, CSS, Node.js, Express, AngularJS
- Databases: Proficient - MySQL, MariaDB, Oracle; Familiar - MongoDB, Neo4j
- Distributed Systems and Cloud Computing: Familiar - AWS (RDS, S3, EC2), Apache Spark