

YELENA Y. YU

Computer Science | Data Analysis | Finance

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 (818) 960-5029

 yelena.info

 San Jose, California

TECHNICAL SKILLS

Programming Languages Python, Java, C/C++, JavaScript, HTML, CSS, SQL, R, VBA, BASIC

Web Frameworks Django, Spring, React.js, Node.js, Vue.js, Angular, Gin

Databases MySQL, SQLite, MongoDB, Firebase, Redis

Tools Git, AWS, Heroku, Linux, REST, Docker, Virtual Machines, SPSS, CRM

Financials CFA Level III Candidate, Financial Modeling, GAAP, IFRS, Valuation, Financial Analysis, Black-Scholes Model

PROJECTS

Automated Stock Analysis & Trading | Python

May 2023 - June 2023

- Developed Python algorithms to fetch stock data from AlphaVantage and IEXCloud to calculate financial indicators in real-time.
- Automated transaction decisions based on calculated indicators with options of paper trading and brokerage accounts.
- Used **Pandas, Robinhood API, REST, Numpy** and deployed to **AWS EC2** for high availability and ease of access.
- Evaluated and tuned algorithms by back-testing with historical data. Deployed to AWS for high availability and accessibility.

Police Fairness Analysis | R

March 2023 - April 2023

- Used hierarchical Bayesian regression model to investigate discrimination against Asians during traffic stops.
- Implemented **R/JAGS** code to clean/preprocess data, train model, and run **Markov Chain Monte-Carlo** simulations.
- Identified evidence of discrimination, with a higher likelihood of citations or arrests for Asian drivers.
- Contributed to discussions on racial equality and justice and demonstrated skills in statistical analysis.

Movie Recommender | R / Shiny

August 2022 - December 2022

- Recommends movies to users by predicting user preferences using **collaborative filtering** (both user-based and item-based).
- Users select movies from list of movie titles, prediction algorithms make recommendations based on similar users and movies.
- Made using **R** and **Shiny** framework, dataset obtained from MovieLens.

Plant Moisture and Temperature Monitor | Python, Raspberry Pi

January 2022 - June 2022

- Monitors ambient temperature and soil moisture for indoor plants, increased plant survival rate over time after deployment.
- Notifies user of low moisture or suboptimal temperature through LEDs, data visualization through **D3.js** web dashboard.
- Logs data into a local file and to AWS via **REST** through **AWS API Gateway, AWS Lambda**, data saved in **AWS DynamoDB**.

EDUCATION

Northeastern University, Khoury College of Computer Sciences

San Jose, CA

Master of Science in Computer Science (GPA 4.0)

January 2023 - Present

William Jessup University, School of Business

San Jose, CA

Master of Business Administration – Information Technology Concentration

August 2019 - December 2022

Pepperdine University, Graziadio School of Business and Management

Malibu, CA

Master of Science in Applied Financial Mathematics, Investments

August 2016

Southwest University of Science and Technology, School of Economics and Management

Sichuan, China

Bachelor of Management, Accounting

June 2014

Honors & Award: Excellent Graduate of Sichuan Province, 2014 (Top 1%); National Scholarship, 2012 (Top 0.18%), Outstanding Student Award, 2011, 2012 & 2013 (Top 1%)

EXPERIENCE

BPM LLP

Santa Rosa, Sonoma

Assurance Senior

September 2019 - December 2022

- In charge of engagements, led engagement team, assigned detailed works, mentored, and guided junior staff, and reported to Audit Managers for audit progress, ensuring the effectiveness and efficiency of each engagement.
- Assigned work to the audit team, and reviewed audit work papers under the general direction of the audit manager.
- Drafted financials and reports, with audit findings, and presented them to clients both verbally and in writing.

ACap Asset Management

Studio City, Los Angeles

Financial Analyst

January 2019 - April 2019

- Developed algorithms and models in Excel **VBA/Macro** to automate portfolio rebalancing, improving efficiency by 80%.
- Designed portfolios for new clients and drafted Investment Policy Statement (IPS) for manager's review, balancing risk based on risk tolerance; analyzed and rebalanced clients' portfolios periodically based on specific IPS; performed Ad-Hoc analysis.
- Wrote investment guidance for industries of interest and presented them to clients.

American Homes 4 Rent

Agoura Hills, Los Angeles

Staff Accountant

November 2016 - December 2018

- Used **Structured Query Language (SQL)** to retrieve relevant data from databases efficiently and accurately.
- Created SQL queries to perform complex data manipulations, including filtering, sorting, and aggregating large volumes of financial data to meet analysis requirements.
- Utilized programming skills in **Excel VBA/Macro** and **data analysis** techniques to analyze millions of expenses for over 50,000 properties on a monthly basis, implementing automated processes for expense re-categorization.