Guowang (Tom) Zeng

Duke | PRATT SCHOOL *of* ENGINEERING

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EDUCATIONAL BACKGROUND

Duke University (US News Ranking 6)

Master of Engineering in *Computer Engineering* 08/2022-05/2024
- **GPA: 3.6/4; Scholarship recipient** (20% of tuition fee) for the first academic year
- **Relevant courses:** Fundamentals of Computer Systems and Engineering (A), Software Engineering (A), Systems Programming and Engineering (A), Human-Centered Computing (A), Programming, Data structures, and algorithms in C++ (A-)

Luiss University

Bachelor of Science in *Management and Computer Science* (Major Global QS Ranking 45) 09/2018-04/2022
- **GPA: 109/110 (3.8/4); Full scholarship recipient** (Including accommodation fee) **in 3 consecutive years**
- **Relevant courses:** Macroeconomics (A+), Microeconomics (A+), Mathematical Finance (A+), Social network analysis (A+), Data Analysis for business (A+), Algorithms (A+), Databases & Big Data (A+), Statistics (A+), Artificial Intelligence and Machine Learning (A), Quantitative Models for Data Science (A), Introduction to Computer Programming (A)

SKILL

- Programming Language: **C/C++**, **Python**, Java, JavaScrip, Software R, Verilog, Stata, MySQL, PostgreSQL, LaTeX
- Tools: **Jira**, **CI/CD**, **DevOPs**, Docker, Git, Vim, Linux, Markdown, Figma, UML, Vue, HTML/CSS, Valgrind, Xmind

FULL-TIME & INTERSHIP EXPERIENCE

Sangfor Technologies (Intern)

Software Development Engineer *[Linux & Python]* 06/2024-10/2024
- Developed command-line test tools, integrated AI to semi automate testing, significantly increasing team efficiency by **6000%**. Contributed to test factor extraction, test plan design, execution, and comprehensive defect regression analysis.

Mevion Medical Systems (Intern)

Software Development Engineer intern *[C++ & Qt Creator & Red Hat Linux & Agile development & JIRA]*
05/2023-08/2023
- Enhanced the Room 3D View features in Path planning and facilitated seamless navigation on the hand panel.
- Addressed and developed display issues, improved user experience, and ensured safe movement of the treatment bed. Researched collision detection techniques collaborated cross-functionally and implemented effective solutions.

Kantar TNS (Intern)

Data analytics intern *[Python & Excel]* 06/2020-09/2020
- Consulted for consumer and retail companies, providing professional data analytics services with Python toolkits. Identified optimal product portfolios and market shares, improving business performance by **87%** and program efficiency by **30%**.
- Constructed comprehensive data visualization reports for clients, demonstrating strong leadership and involvement in successful project delivery. Resulted in high levels of satisfaction and positive feedback from clients.

LEADERSHIP & INVOLVEMENT

Duke University

SATS 101 (Introduction to Applied Statistical Methods) Teaching Assistant *[Software R]* 08/2022-10/2022
- Answered statistical questions and the syntax error of R for undergraduate students with daily office hours per week.
- Assisted professors in grading undergraduate assignments and exams. Taught and guided them for ambiguous questions.

PROJECT EXPERIENCE

Duke University

Milk tea ordering system *[JavaScript/TypeScript]* 03/2024-05/2024
- Developed a milk tea ordering webpage using Vue for the front end and JavaScript/TypeScript for the back end. Managed the database with MongoDB and deployed the system using Docker. The system includes customer and staff interfaces for product selection, order submission, and order status tracking.
- Created automated test scripts with Playwright to ensure system stability across various scenarios.

Text-Based Game Development Framework *[C/C++]* 08/2022-12/2022
- Utilized C programming skills to debug a program, ensuring program compliance and prompt errors. Implemented data storage with structs and pointers, dynamic allocation, and memory leak checking with Valgrind. Work completed in SSH.
- Developed a range of algorithms for strings, arrays, linked lists, binary trees, queues, and stacks. Utilized BFS and DFS to calculate layer numbers and optimal solutions. Employed Git commands for version control during development.

ECtHR Cases Classification — Machine Learning & Artificial Intelligence Project *[Pyhton]* 03/2020-06/2020
- Conducted comprehensive NLP preprocessing tasks such as tokenization, stop-word removal, lemmatization, and case normalization to enhance the quality of data inputs.
- Utilized a variety of machine learning algorithms including Support Vector Machines (SVM), Naive Bayes, and Doc2Vec, and finely tuned model hyperparameters using GridSearchCV, which significantly improved the average accuracy to 75.21%.

ADDITIONAL INFORMATION

- **Languages:** Chinese Mandarin (Native), English (Proficient), Italian (Intermediate)

- **Certificates: TOEFL: 111, GRE: 330+,** European Computer Driving License (ECDL/ICDL), Google Analytics Certification, Programming Fundamentals by Duke University (Coursera), Introduction to Data Science in Python by UMich (Coursera), Entrepreneurship by UPenn (Coursera)