NIMA GOLSHAHI

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PROFILE

I am a final-year Computer Science student at the University of Southampton, proficient in Java, C#, C, Python, and Haskell. My academic and project experiences have fueled my passion for machine intelligence, AI, and computer vision, alongside a keen interest in the financial applications of computer science. I am eager to leverage my technical skills and knowledge in these areas to contribute to innovative and impactful projects.

EDUCATION

University of Southampton *Expected Graduation July 2025*
BSc in Computer Science

Algorithmics 70%
Programming I 95%
Computer Systems I 80%
Data Management 84%
Professional Development 76%
Programming II 93%
Foundations of CS 89%
Software Modelling and Design 85%
Intelligent Systems 94%
Programming III 88%
Theory of Computing 75%
Interaction Design 71%
Distributed Systems & Networks 72%
Software Eng Group Project 75%
Programming Concepts 70%
Principles of Cyber Security 70%

Awards: Netcraft Prize (Top 10 Students Over 70%)

The Sixth Form College Farnborough *September 2020 - July 2022*

A Level Chemistry A*
A Level Biology A*
A Level Maths A*
A Level Further Maths A*
AS Level Further Maths A

Amery Hill School *September 2015 - July 2020*

Mathematics - Grade 8
English Literature and Language - Grade 7
Computer Science - Grade 9
Statistics - Grade 8
Biology - Grade 7
Chemistry - Grade 8
Physics - Grade 7
Geography - Grade 8
German - Grade 7

EXPERIENCE

Redgate July 2024 - Present
Software Engineer Intern, Iron Horse Team *Cambridge*

- Developed expertise in SQL and Oracle database comparison techniques, pivotal for enhancing Flyway's database migration capabilities.
- Implemented efficient algorithms to generate deployment and rollback scripts based on differences identified between two databases.
- Demonstrated meticulous attention to detail in analyzing database schemas and data to ensure accurate comparison results.
- Adapted quickly to evolving project requirements and deadlines, showcasing flexibility and problem-solving skills in a dynamic team environment.
- Prioritized software quality and performance to enhance Flyway's ability to handle large-scale database comparisons effectively.

PROJECTS

GraphQuery Language June 2023
Grade: 78% *Programming Language Concepts*

- Designed and implemented a domain-specific programming language, GraphQuery, using Haskell with Happy and Alex for lexing and parsing.
- Developed syntax inspired by SQL and tailored for querying and manipulating graph data documents effectively.
- Implemented an interpreter that executes GraphQuery programs to solve specified problems, demonstrating proficiency in language design and implementation.
- Created programs to address five predefined problems and documented design decisions in a comprehensive programming language manual.

Ad Auction Dashboard May 2023
Grade: 75% *Data Analysis and Visualization*

- Led a team effort to develop an Ad Auction Dashboard enabling users to analyze and visualize campaign performance metrics.
- Implemented features allowing users to upload campaign zip files containing server, impression, and click logs, extracting statistics and generating graphical representations.
- Designed an intuitive user interface with filtering options by age, user ID, context, and date, enhancing user interaction and data exploration.
- Incorporated multi-user functionality with roles for admins, editors, and viewers, enabling admin privileges like user management and campaign creation.
- Enabled export functionalities for graphs (PNG format) and data (CSV format), ensuring flexibility and utility in data dissemination.
- Demonstrated expertise in data management, analysis, and user interface design, achieving high marks for both technical implementation and user experience.

Distributed Storage System June 2023
Grade: 74% *Distributed Systems*

- Designed and implemented a distributed storage system using Java, encompassing a Controller and multiple Data Stores (Dstores).
- Implemented functionalities such as file replication, load balancing, and fault tolerance to ensure data reliability and availability.
- Integrated networking concepts for communication between Controller and Dstores, supporting concurrent client operations for storing, loading, and managing files.
- Conducted rigorous testing and evaluation to validate system performance and scalability, showcasing proficiency in distributed systems design.

TECHNICAL STRENGTHS

Computer Languages	Java, C#, C, Python, Haskell
Protocols & APIs	XML, JSON
Databases	SQLite, MongoDB
Machine Learning Libraries	TensorFlow, PyTorch
Data Analysis Tools	Pandas, NumPy
Data Visualization	Matplotlib, Seaborn
Version Control	Git
Research Paper Writing	Latex
Operating Systems	Linux, MacOS, Windows