SUYASH RAJ

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EDUCATION

University of Wisconsin, Madison	**September 2023 - Present**

Currently pursuing MS in Computer Science

Birla Institute of Technology and Science, Pilani, India	**August 2017 - August, 2021**

Secured a Bachelor of Engineering in Computer Science with GPA **8.97** /10

PROFESSIONAL EXPERIENCE

Eltropy Inc.	**January 2021 – August 2023**

Full Stack Engineer – US Integrations Team

Eltropy is the leading Digital Communication Platform for Financial Institutions, primarily serving Credit Unions and Community Banks in USA and Japan.

- Developed EllieMae software integration with Eltropy, and launched multiple use-cases, including platform launch, data sync, and live alerts, saving $220k/year in compensatory charges.
- Implemented DocuSign template matching within Eltropy platform, allowing loan documents to be automatically populated with fields on upload, increasing document processing speed by 200%.
- Designed and Implemented integrations with MeridianLink LoansPQ, Symitar Quest, Nice InContact and Fiserv DNA & Portico, through web APIs, FTP, and AWS cloud interactions, increasing user adoption by 45% in Eltropy Integrations.
- Led a team of consultants and interns to deliver high-quality platform integrations.

Microsoft	**March 2020 – May 2020**

Software Engineering Intern – Search Technology Centre (Bing Team)

- Created a POC for multi-entity answer experience, with a 42% increase in user-engagement in testing.
- Enhanced query response through efficient extraction, filtering, and processing of important facts in C# and relationships between *Satori – knowledge graph* data entities to answer multi-entity queries.
- Created an end-to-end user-experience with Bing's answer architecture and Lite framework in C#.

Homi Bhabha Centre for Science Education	**May 2019 – July 2019**

Software Engineering Intern

- Developed GDF, an open-source alternative to RDF, to represent knowledge/data in a graph format.
- Implemented the query engine for the Graph Document Format in C.
- Designed a responsive Web Application to interact with GDF data and perform queries through a GUI.

ACADEMIC PROJECTS

Plate Tectonics based Nearest Neighbourhood Search Optimization

- Using theories from Plate Tectonics, develop a numerical optimization algorithm and benchmark it.
- Implemented the algorithm in Python and MATLAB
- Improved the algorithm by pre-calculating better locale with Bio-Geography Based Numerical Optimization and benchmarked it against CEC-2017 benchmark functions.
- Implemented the algorithm using Python and MATLAB.

ERPLAG Compiler

- Designed and implement a compiler for a custom Turing complete language, ERPLAG in C.
- Developed a lexical analyzer, parser, and Abstract Syntax Tree constructor for precise code analysis.
- Created robust symbol tables and a rigorous type checker to ensure code correctness.
- Implemented the semantic analyzer and code generator, yielding optimized NASM assembly code.

TECHNICAL SKILLS

Golang	*- 2 years*	Deep Neural Networks		JavaScript	
Java	*- 2 years*	Generative Image Synthesis		NodeJS	*- 2 years*
Spring Boot	*- 1 year*	Android Development	*- 1 year*	ReactJS	*- 1 year*
Python		AWS	*- 2 years*	Natural Language Processing	
C		C#		Machine Learning	