Sebastian Thomas

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Availability - Summer 2025

Education

- **Northeastern University** — Boston, MA
  Master's in Artificial Intelligence (GPA: 4.0) — *Sep 2024 - Expected Dec 2026*
  - Courses: Foundations of Artificial Intelligence, Programming Design Paradigms
- **Mar Athanasius College of Engineering** — Kerala, India
  Bachelor of Technology in Computer Science and Engineering (CGPA: 8.45/10.0) — *May 2020*
  - **Best outgoing student, Computer Science Department**
  - Represented college and won multiple quiz and coding competitions

Skills

Languages: Python3, C++, C, NodeJS, SQL, Java
Databases: MS-SQL, AzureSQL, AWS-RDS
Operating Systems: Windows, Linux
Frameworks\Libraries: HapiJS, pandas, numPy, PyTorch

Work Experience

- **Center for Advancing Teaching and Learning Through Research (CATLR)** — Boston, MA
  AI Instruction Assistant — *Jan 2025 - Current (Part-time)*
  - Helping develop AI-enhanced learning experiences by collaborating with the faculty of Northeastern University.
- **Commvault Systems** — Bangalore, India
  Senior Engineer — *Jan 2020 - July 2024*
  - Worked as a software engineer specializing in **MS-SQL data backup and recovery**, **intellisnap** technology and **virtualization**.
  - More than 4 years of domain knowledge in MS-SQL backup/recovery, Python and C++ .
  - Have contributed in 10+ projects focusing on on-prem databases, cloud databases - Azure and AWS RDS.
  - Diagnosed and provided fixes for 50+ critical customer escalations.
  - Led Python automation efforts across all database projects, improving efficiency by 30%.
- **SurveySparrow** — Kakkanad, India
  Software Engineering Intern — *Jun-Aug 2018*
  - Joined as an intern after **winning a coding competition** held by the company.
  - Developed web applications using **NodeJS** and the **Hapi** framework.
  - Built a framework that automated the conversion of survey data into Google Sheets, reducing manual effort by 80% and completed the project in under 2 months.

Projects and Achievements

- **Improving multi-agent collaboration in Large Language Models**:
  - Designed and implemented multi-agent-specific benchmarks to evaluate collaborative capabilities of LLMs, utilizing customized grid environments and communication protocols.
  - Enhanced collaboration in LLMs by fine-tuning open-source models, optimizing their performance on diverse, task-driven benchmarks
- **Northeastern University Chatathon winner, 2024**:
  - Won first place in a **generative AI prompt engineering** competition organized by the Artificial Intelligence club.
  - Engineered a prompt that simplified the course selection and registration process, enabling better long-term academic planning tools for students.
- **Image Processor Application**:
  - Developed a robust Java-based image processing application using the MVC architecture and command design patterns.
  - Applied test-driven development (TDD) with JUnit and mock classes to ensure resiliency, scalability, and comprehensive test coverage.
- **Voice Separation using RNN**:
  - Designed and deployed a voice separation model using **RNNs** to process audio samples and isolate speakers' voices with high accuracy.
  - Received the **Best Final-Year Project** award at the university, securing an outstanding grade for innovation and technical excellence.

Certifications and Publications

- Microsoft Certified in Azure Fundamentals, 2023, Certification Number: I629-5275
- Voice Segregation using Fully Supervised RNN, ISSN: 2321-9653