Sebastian Thomas

thomas.seba@northeastern.edu | (617) 953-4032 | seb-thoms | Sebastian Thomas | Boston, MA

Education

- **Northeastern University - Khoury College of Computer Sciences** — Boston, MA
  Master's in Artificial Intelligence (GPA: 3.92) — *Sep 2024 - Expected Dec 2026*
  - Courses: Foundations of Artificial Intelligence, Machine Learning, Reinforcement Learning
  - Recipient, **IEEE Computer Society Career Catalyst Scholarship**, 2025
- **Mar Athanasius College of Engineering** — Kerala, India
  Bachelor of Technology in Computer Science and Engineering (CGPA: 8.45/10.0) — *Aug 2016 - May 2020*
  - **Best outgoing student, Computer Science Department**
  - Relevant coursework: Calculus, Linear Algebra and Complex Analysis, Probability Distributions, Transforms and Numerical Methods **(graded Outstanding in all)**

Work Experience

- **Center for Advancing Teaching and Learning Through Research (CATLR)** — Boston, MA
  AI Instructional Assistant — *Jan 2025 - Current (Part-time)*
  - Conducted **student focus groups** for the College of Social Sciences and Humanities, then designed and deployed surveys based on focus group findings to gather broader quantitative and qualitative data on generative AI integration.
  - **Interviewed practicing attorneys** to analyze generative AI adoption in the legal industry, providing actionable insights to inform curriculum design that aligns with evolving workforce expectations.
  - Led cross-college research initiatives on the use of **generative AI in education**, collaborating with faculty from Social Sciences, Law, and Science to explore socially responsible AI integration in pedagogy.
  - Developed a Python-based evaluation tool using the Anthropic API to assess the effectiveness of AI chatbots in supporting student learning, focusing on alignment, clarity, and helpfulness.
  - Designed **4 AI-powered student guides** leveraging advanced LLM capabilities (Claude artifacts, rubric analysis, interactive prompting) to transform traditional academic support into AI-first solutions.
- **Commvault Systems** — Bangalore, India
  Senior Engineer — *Jan 2020 - July 2024*
  - Led the **design, development, and enhancement** of the Application-Aware Backups feature, collaborating with cross-functional teams to ensure scalability, reliability, and alignment with user needs.
  - Created and maintained **technical documentation** for SQL backup workflows, enabling knowledge transfer for internal teams and seamless integration for client engineering groups.
  - Resolved 50+ high-priority customer escalations through deep troubleshooting across **virtualization**, **databases** (MS-SQL, AWS RDS, Azure), and **Linux/Unix environments**.
  - Mentored **two interns**, providing guidance on database backup, automation, and best practices in enterprise software development.

Volunteering

- **Founding Member, IEEE Computer Society Student Chapter - 2018**: Co-founded the college's first IEEE Computer Society Student Chapter at Mar Athanasius College of Engineering, organizing speaker sessions, coding workshops, and promoting peer learning in emerging technologies.
- **Sponsorship Head, Model United Nations and TEDx Local Chapters - 2018**: Led fundraising and sponsorship efforts for the inaugural MUN and TEDx chapters at the college, securing partnerships, managing logistics, and supporting successful large-scale event execution.
- **Pratidhi - Jun 2023**: Volunteered for Commvault's Pratidhi program to address the gender gap in the tech industry, coordinating and preparing Python3 sessions for students.
- **Flood Relief Volunteer - Aug 2018**: Volunteered for the local government's campaign to collect and package vital supplies for the victims of the 2018 Kerala floods.

Projects

- **Multi-Agent Collaboration Enhancement in Large Language Models (LLaMA 8B/70B)**
  Benchmarked and fine-tuned LLaMA 8B models for cooperative agent tasks using grid-based environments, improving reasoning and zero-shot performance.
- **Reinforcement Learning Strategy Analysis for Agent-Based Games**
  Conducted an ablation study comparing PPO-Clip and PPO-KL variants for No-Limit Texas Hold'em using the RLCard environment.
- **Ethical AI Income Prediction with Explainability and Bias Mitigation**
  Developed fair ML model using SHAP explainability analysis and adversarial debiasing to predict income while minimizing demographic bias on Adult dataset.

Skills

Languages: Python3, C++, C, SQL, Java
Operating Systems: Windows, Linux(CentOS, Red Hat)
Databases: MS-SQL, AzureSQL, AWS-RDS, PG-SQL
Frameworks\Libraries: PyTorch, TensorFlow, pandas, NumPy, Hugging Face, LangChain, beautifulsoup4, selenium

Certifications and Publications

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