# Jay Jhamb

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#### **Education**

#### University of Texas at Dallas, BS in Computer Science

• GPA: 3.6/4.0

• Coursework: Intro to Machine Learning, Advanced Algorithm Design & Analysis, Database Systems, Software Engineering, Systems Programming in Linux, Computer Networks

### **Experience**

#### Software Engineer Intern, Liberty Mutual Insurance – Plano, TX

May 2025 - Aug 2025

Expected: May 2026

- Migrated 7 legacy database tables to modern infrastructure, reducing overall project workload by 50% and enabling team to focus on high-impact development initiatives
- Modernized Java code affecting 3,000+ JUnit test cases, ensuring compatibility across a large test suite
- Collaborated in an Agile development environment, implementing automated CI/CD pipelines and Git version control workflows to streamline code deployment and maintain code quality standards

#### **Undergraduate Research Assistant**, University of Texas at Dallas – Richardson, TX

Jan 2025 - Aug 2025

- Evaluated multiple OpenAI models (Davinci-002, GPT-3.5, GPT-40) using P(True) calibration methodology, processing 20,000 examples to measure confidence accuracy
- Developed a Python evaluation framework integrating OpenAI API with few-shot learning, temperature sampling, and k-sampling techniques to optimize automated model assessment, achieving 40% higher confidence scores
- Implemented statistical analysis and data visualizations using matplotlib and pandas to identify calibration trends and establish reproducible evaluation protocols

### GenAI Extern, Cognizant - Remote

May 2025 - June 2025

- Developed code for text generation and completion tasks using transformer-based language models, exploring tokenization, attention mechanisms, and fine-tuning
- Built experimental projects involving Generative Adversarial Networks to explore synthetic text and data generation techniques
- Implemented and analyzed transformer architectures to understand their application in real-world NLP tasks

#### Software Developer, Outreach Lead, MetroHacks – Dallas, TX

Aug 2021 – Aug 2024

- Organized the largest international hackathon in DFW, reaching over 800 people with a 50% sign-up rate
- Collaborated with corporations, including Google, Dito, Digital Ocean, and Texas Instruments, raising over \$12,000 for the event
- Led a team of 8 developers to build full-stack web platform (metrohacks.dev) using JavaScript, HTML, and CSS, serving 400+ users through agile development practices and comprehensive code review processes

## **Projects**

#### **Smart Calendar Assistant Application**

- Built a full-stack web app that uses GPT-4 to parse natural language and automate calendar scheduling
- Integrated Google OAuth2 for secure calendar access and conflict detection
- Designed RESTful API and backend logic to suggest optimal time slots and manage events
- React, Flask, OpenAI API, Google Calendar API, OAuth2

### **Philips Hue Computer Application**

• Built a responsive Philips Hue control app with React, TypeScript, and Flask, integrating real-time light state updates and contributing to the open-source pyhue library.

# **Technical Skills & Interests**

Languages: Java, Python, C++, C, JavaScript, TypeScript, SQL, Go

Technologies: AWS, Docker, PostgreSQL, Spring Boot, React, Git, Node.js, Flask, TensorFlow/PyTorch

Interests: Machine Learning, Financial Markets, Basketball, Gaming, Reading, Movies, Hackathons