

PRALAY BHATTACHARJEE

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SUMMARY

Analytical and execution-focused BCIS professional with a strong foundation in software fundamentals, data analytics, and business intelligence. Experienced in building dashboards, data pipelines, and decision-support tools using Python, SQL, Power BI, and Tableau, while supporting 200+ learners as an Instructional Assistant across Java and mainframe systems. Demonstrated leadership in driving cross-functional initiatives, organizing industry partnerships, and delivering measurable improvements, outcomes, and team performance through clear communication and rapid learning.

EDUCATION

University of North Texas

May 2026

Bachelor of Science, Business Computer Information Systems (GPA: 3.87/4.0)

- **Achievements:** President's List: Summer 2024, Fall 2024, Spring 2025, Dean's: Summer 2023, Fall 2025, 3rd Math Olympiad
- **Coursework:** Data and Business Analysis, Data Structure and Algorithm, Java, COBOL, Mainframe, SQL, Tableau, Power BI

WORK EXPERIENCE

Teaching/Instructional Assistant - Data Visualization & Programming (Tableau, Power BI, Java and Mainframe) May 2025 - Present

Information Technology and Decision Sciences, University of North Texas

- BCIS 3610 - Data Visualization (August 2025 - Present): Achieved impactful data-driven learning outcomes for 100+ students, as measured by up to 33% improvement in course performance, by guiding the development of Tableau, Power BI, and Amazon QuickSight dashboards. Employed design thinking to clarify requirements and translate academic needs into technical solutions with a focus on KPI design and actionable insights.
- BCIS 3630 - OOP (May 2025 - Present): Enhanced student performance for 120+ learners, resulting in up to 11.5% boost in final grades through extra credit. Led academic support in Introduction to Java by aligning tutoring and grading with course objectives, facilitating hands-on learning in Java and IBM Mainframe tools (TN3270, ZXplore), and providing targeted feedback to address diverse learning challenges.

UX (Web Content) Designer and Accessibility Project Analyst + Summer Intern

Jul 2024 - Aug 2025

University Brand Strategy and Communication, University of North Texas

- Accessibility Project Analyst Intern (Summer 2025): Delivered a 200% increase in user engagement and elevated QA and accessibility scores from 55% to over 90% by auditing and optimizing 2,600+ College of Education webpages using Siteimprove and CMS tools. Translated stakeholder requirements into actionable technical improvements while ensuring compliance with accessibility standards.
- Web Content Student Assistant (July 2024-August 2025): Achieved a 40% reduction in content errors and accelerated decision-making for site updates as measured by improved site quality and responsiveness. Maintained and enhanced 330+ UNT websites by resolving SEO and accessibility issues, managing stakeholder communications, and leveraging data-driven insights to improve usability for 50,000+ users.

PROJECTS

Workforce Intelligence Platform (Python, SQL, BI) – CGI AIS SCLC 2026

Dec 2025 - Present

- Designing and building a scalable workforce intelligence platform by integrating and analyzing large-scale U.S. government datasets from Data.gov; engineering Python-based data processing workflows and SQL pipelines to transform raw labor and economic data into structured, analytics-ready datasets and core KPIs.
- Developing and iterating interactive BI dashboards and predictive analytics features, including trend forecasting and scenario-based “what-if” analysis, to surface actionable insights and support strategic, non-technical decision-making as part of a national CGI analytics competition.

ExtinguishAI: AI-Powered Drone Surveillance for Wildfire Prevention (Machine Learning, AI + IoT, Automation)

Apr 2025

- Developed a scalable, AI-driven drone surveillance system that autonomously detects and suppresses wildfires using machine learning, computer vision, LiDAR, thermal imaging, and Starlink-powered real-time data; reduced false alarms and response delays while covering 2.36M sq. mi. daily at a fraction of traditional costs.
- Engineered autonomous navigation, swarm coordination, & AI-based fire-retardant deployment; delivered an app for real-time alerts and control, projecting up to \$53.8B in annual damage prevention & earning finalist selection at the AIS SCLC national competition.

Southern Company - UA Innovate 2025: Telecom Workforce Management Dashboard (Power BI, Excel, SQL)

Apr 2025

- Built a fully automated Power BI dashboard using Power Query and DAX to analyze 1,200+ rows of raw work management data, enabling leadership to assess productivity, & workforce distribution across 5+ departments; reduced manual reporting effort by ~80%.
- Designed 12+ interactive visuals (KPIs, heatmaps, time-series charts) with scalable architecture for real-time insights, helping identify workload imbalances, optimize staffing, and evaluate backfill needs in the Change Management division.

TECHNICAL & SOFT SKILLS

- **Languages & Databases:** Python, Java, SQL, R Programming, CSS, HTML, IBM z/OS, REXX, TSO, COBOL, JCL, VSAM, ASP, C#
- **Tools & Technologies:** Tableau, Power BI Service, Amazon QuickSight (Q), AWS S3, AWS EC2, Redshift, SAP S/4HANA, Smartsheet, Modern Campus CMS, Drupal, API Integration (e.g., Google Analytics, Google Sheets), Google Cloud Platform (GCP), Microsoft Excel Specialist Certified
- **Expertise:** Data Analysis & Reporting, Business Metrics Development, Data Pipeline Design, Report Automation, Natural Language Querying (QuickSight Q), Dashboard Creation, Stakeholder Communication, SQL Querying & Data Extraction, Data-Driven Decision Making, Design Thinking

CERTIFICATION

- IBM Z Xplore - Advanced Badge

- MS Excel Specialist

- Google Data Analytics Professional Certificate

- AWS Cloud Computing

- IBM Project Management

- AWS QuickSight for Business Analysts

- SAP S/4HANA

- Google Cloud Skills Boost

EXTRACURRICULAR

Association for Information Systems, University of North Texas | Executive Officer

Aug 2024 - Present

- Leading digital strategy and financial operations as Treasurer and Executive Officer, enhancing technical initiatives and driving engagement for a 150+ member AIS chapter through professional development and corporate partnerships.

Wakeboarding Team, University of North Texas | Member

Aug 2021 - Aug 2023

- Represented the University of North Texas in intercollegiate wakeboarding competitions, demonstrating teamwork, discipline, and competitive performance.