

# Jack Sebastian

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## Education

Texas A&M University / College Station, TX

Aug 2019 – May 2023

B.Sc. Computer Science and Applied Mathematics / GPA: 3.83

Awards/Distinctions: Honors Fellow, University Research Scholar, Engineering Honors, Honors in Mathematics, Latin Honors

Relevant Coursework: Data Structures/Algorithms, Machine Learning, Computer and Network Security, Parallel Computing, Cloud Computing, HCI

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## Programming Languages and Skills

Java, Python, C++, JavaScript, HTML, CSS, React.js, Node.js, Express.js, Flask, MongoDB, SQL, Amazon Web Services (AWS)

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## Experience

Marky / Founding Engineer

August 2023 – Present

- Pioneered the backend architecture using Chalice and Python for driving the platform's core functionality.
- Spearheaded the design and refinement of API endpoints, dynamically adapting to evolving business needs and ensuring robust data modeling.
- Established and maintained a comprehensive testing suite, promoting a culture of quality assurance and ensuring the platform's reliability in a dynamic startup environment.
- Utilized Python, React.js, AWS (DynamoDB, Lambda, Chalice).

Amazon / Software Development Engineer Intern / Austin, TX

May 2022 – August 2022

- Implemented a full-stack, self-service application for the Alexa team that streamlined device onboarding operations and improved efficiency for Amazon's Product Managers.
  - Consolidated existing internal tools into a single platform, significantly reducing the complexity and arduousness of the onboarding process.
  - Enhanced system reliability by incorporating user authentication and maintaining data integrity across all integrated services.
  - Utilized Java, React.js, Node.js, AWS ECS.
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## Projects

Visit [github.com/jacksebastian17](https://github.com/jacksebastian17) for more projects

Illicit Transaction Graph Attention Network / [github.com/jacksebastian17/graph-attention-network](https://github.com/jacksebastian17/graph-attention-network)

- Developed a Graph Attention Network (GAT) for detection and classification of illicit transactions on the Bitcoin blockchain, demonstrating superior performance in comparison to traditional binary classification methods.
- Employed machine learning techniques to enhance Anti-Money Laundering (AML) methods, effectively identifying patterns in licit and illicit blockchain nodes.
- Utilized Python, TensorFlow, Keras, NumPy, pandas, scikit-learn.

Harmonia / [github.com/tamu-datathon-org/harmonia](https://github.com/tamu-datathon-org/harmonia)

- Developed authentication tool for TAMU Datathon's website that integrates with Discord to enable user account linking, role assignments, and membership status tracking.
  - Implemented various server-side operations like user creation and update, fetching member status and roles, and retrieving specific user data based on authentication ID.
  - Utilized Next.js, React.js, Discord.js, Express.js, MongoDB.
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## Organizations

TAMU Datathon / Vice President / College Station, TX

March 2021 – January 2023

- Led a 25-student team to plan and execute an annual international data science hackathon with 1000+ participants, handling key tasks including sponsor liaison, venue selection, and event coordination.

Google Developer Student Club / President / College Station, TX

June 2021 – May 2022

- Directed the GDSC chapter at Texas A&M, organizing weekly event to promote Google technologies, managing a 5-member team, and fostering collaboration with other computer science organizations and Google guest sessions.