THOMAS HARI E. BUDIHARDJO

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EDUCATION

Texas A&M University, College Station, TX — Expected Graduation: May 2021
- Bachelor of Science in **Computer Science** — GPA: 3.7
- Minor in **Statistics** and **Cybersecurity**
- Relevant coursework: Software Engineering, Machine Learning, Data Science, Database Systems, Information Storage and Retrieval, Data Structure and Algorithms, Design and Analysis of Algorithms, Discrete Structures for Computing, Computer Organization, Operating Systems, Computer and Network Security, Linear Algebra

PROJECTS

TAMU Engineering Honors Points Tracker — **September - November 2020**

Ruby, Rails, RSpec, Capybara, PostgreSQL, Heroku, Git, Jira, Microsoft Teams
- Web application that allows officers and members to track members' activities in the organization
- Utilized Ruby on Rails with PostgreSQL in accordance with MVC design principles to implement RESTful routing and CRUD functionality; created documentation for clients, deployed application on Heroku
- Followed TDD principles leveraging RSpec to write integration unit tests and Capybara to create acceptance tests
- Adhered to agile methodology by working in two-week sprints and participating in daily standups and bi-weekly backlog grooming meetings utilizing Jira
- Cooperated with 3 other members using GitHub for version control and Microsoft Teams for communication
- Features include account creation/verification, login system, admin privileges, user-dependent views, event management, point tracking and leaderboard, and data export

***Reify* mobile platform** — **January - May 2020**

Python, SciPy, NumPy, scikit-learn, GIS
- Mobile application prototype design that allows residents, city leaders, and contractors in the city of Nolanville, TX communicate as part of the ENDEAVR Interdisciplinary Team Project smart city challenge
- Weekly coordination meetings with team members of 6 different majors
- Implemented a k-Nearest Neighbor model to predict where floods are likely to occur as part of the alert system
- Features include issue reporting, improvement suggesting boards, alert system, and live information concerning current and planned construction projects
- Awarded the Best Project, Creativity, and Pinnacle certificates

Snake Game — **November - December 2019**

C#, Unity
- Basic Snake game with accessibility-minded controls in C# using Unity
- Features include remappable controls (including voice controls), hover-to-select, and distinct selectable text

UNIX Shell — **November 2019**

C++, AWS, Amazon EC2
- UNIX Shell on Amazon EC2 that executes common Bash commands such as echo, cd, sleep, awk, and grep
- Features include continuous input, piping, I/O redirection, and background processing

Movie Database Management System — **September - October 2019**

Java, JavaFX, SQL, ANTLR
- Designed and developed a DBMS in Java and a corresponding GUI using JavaFX to manage and query data from The Movie Database (TMDb) for use in an introductory film studies course in the College of Liberal Arts
- Utilized ANTLR parser generator to implement Dijkstra's shunting-yard algorithm to be able to translate SQL commands into the corresponding Java methods to implement data storage and manipulation in the database

ADDITIONAL

- Proficient: C++, Java, Python
- Familiar: SQL, Ruby, JavaScript, CSS, HTML, C#, R, Haskell, MATLAB, LabVIEW
- Tools: Git, Jira, Microsoft Teams, Bash, Amazon EC2, PostgreSQL, Ruby on Rails, RSpec, Capybara, Heroku, Unity, pandas, NumPy, SciPy, scikit-learn
- Activities: St. Mary's Catholic Center Orchestra, Texas A&M Data Analytics Club, Texas A&M Spring Programming Competition 2019, The Big Event Cleanup Volunteer
- *Interests: songwriting, browsing for new music, live-streaming, chess, soccer, Formula 1, first-person shooters*