# Can Dai

**OBJECTIVE:** To secure a **full-time** position in **Software Engineering, Data Science**, leveraging my skills in Python, Django, R, SQL, as well as my background in Computer Science and Engineering. I am passionate about Native, Web, Hybrid Applications, Machine Learning/AI, and Product Development. With strong research skills and attention to detail, I am confident in my ability to make a valuable contribution to any team.

# **EDUCATION & BACKGROUND**

DePaul University, Chicago, IL		Graduation Date: June 2023	
Major:	Master of Science in Computer Science (GPA: 3.82)	-	
<b>Relevant Courses:</b>	Data Structures & Algorithms • Artificial Intelligence I • Machine Learning A	e I • Machine Learning Applications • Advanced Machine	
	Learning • Fundamentals of Data Science • Advanced Data Analysis • Softwa	are Testing & Quality Assurance	
Honors:	DePaul's Honor Society of Upsilon Pi Epsilon (UPE)	·	
Certifications:	Meta Back-end Web Developer Professional Certificate		
Programming Skills: Python • Java • C • SQL • Django • REST • HTML • CSS • Git • R • Tableau • MATLAB • Pandas • NumPy			
	PySpark • EclEmma • PIT • Apache JMeter		
Purdue University,	West Lafayette, IN	Graduation Date: December 2020	
Major:	Bachelor of Science in Mechanical Engineering		
Honors/Awards:	Dean's Honors List and Semester Honors • Alpha Lambda Delta - Phi Eta Sigma Honor Society		
Certifications:	IISE Six Sigma Green Belt	- •	

# SOFTWARE PROJECTS

# RapidRead (Google Chrome Extension) - <u>www.rapidread.app</u>

Tech Stack: Django, Python, JavaScript, HTML, CSS, STRIPE API, SMTP

• Developed and published a Chrome Extension to boost reading speed by 300% with custom text transformations, managing version updates and compatibility on the Chrome Web Store.

• Designed and launched a Heroku website featuring the extension, including user authentication for premium access via Stripe and an SMTP email system for ordering activation codes.

#### Bert - Payment Processing for Restaurant Checkouts (Web Application) - GitHub

Tech Stack: Django, Python, Stripe API, SMTP, Django REST API

- Created a Django-based NFC payment system for restaurant tables, allowing easy online transactions without cash or physical receipts.
- Implemented Stripe for online payments and used Django's email framework for order confirmations and payment notifications.
- Employed Django REST API for a serializer that collects and displays successful orders from the SQLITE database.
- Designed a restricted webpage for waitstaff to manage orders, order items, and table assignments efficiently.

## WORK & RESEARCH EXPERIENCE

#### **Back-end Software Engineer Intern**

PhonicHouse, Stock Exchange of Musicians | Remote

- Worked with 2 Software Engineers to develop the back-end systems of a web application using Django and Django REST framework.
- Collaborated with a Front-end Web Developer on designating endpoint URLs, creating database model objects, and handling web
  requests using view functions.
- Architected a relational database in MariaDB to store user and musician information using SQL.
- Utilized GitHub to push changes, follow project flow, and approve pull & push requests.
- Conducted code reviews, created documentation, and presented weekly in team meetings.

#### Graduate Research Assistant & Project Lead

DePaul University Robotics & Medical Engineering (ROME) Lab | Chicago, IL

• Assisted Prof. Isuru Godage in researching Decentralized Swarm Robot Collaboration and Simulation using Ethereum blockchainbased Smart Contracts.

• Engineered Python algorithms to efficiently navigate robotic systems through complex environments while avoiding obstacles and created automation scripts capable of generating environments within the Gazebo simulation environment, effectively streamlining the testing and validation processes.

• Constructed the first successful integration of Robotic Operating System (ROS) with the Ethereum blockchain using physical robots, resulting a novel, secure and reliable way of collaboration between robots.

• Got promoted to the Project Lead position and successfully published a research paper.

#### **Back-end Software Engineer Intern**

Udext.com | Chicago, IL

- Collaborated with the Product Manager to identify the scope of a minimum viable product.
- Teamed with the Design Team to ensure pixel-perfect implementation of front-end deliverables using Figma.
- Worked with a Sr. Engineer to design SQLITE database models for a Django-based back-end web application, enabling users to send text messages through the Twilio API in a web-based SaaS platform.
- Wrote unit tests and assisted in the automation to ensure proper test-coverage of the source-code.

## PUBLICATIONS

S. Mallikarachchi, C. Dai, O. Seneviratne and I. Godage, "Managing Collaborative Tasks within Heterogeneous Robotic Swarms using Swarm Contracts", 2022 IEEE International Conference on Decentralized Applications and Infrastructures (DAPPS), 2022, pp. 48-55, doi: 10.1109/DAPPS55202.2022.00014.

October 2021 - June 2022

May 2021 – August 2021

June 2022 – August 2022