Andrew Sima

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EDUCATION

HARVARD UNIVERSITY
B.A. Applied Mathematics
Intended M.S. in Computer Science
Class of 2024 | Cambridge, MA
- Quantum Computing Association
- Association for U.S. China Relations, Tech Team
- Data Analytics Group

LOWELL HIGH SCHOOL
Class of 2020 | San Francisco, CA
- Student Body Council President
- Authored Board of Education gun safety resolution

COURSEWORK

UNDERGRADUATE
- CS61 - Systems Programming and Machine Optimization
- CS121 - Introduction to Theoretical Computer Science
- CS124 - Data Structures and Algorithms
- AM120 - Applied Linear Algebra and Big Data
- MATH22 - Linear Algebra and Vector Calculus

TECHNOLOGIES

PROGRAMMING LANGUAGES:
Python • C • C++ • Java • Ruby • SQL • PHP • cURL • LaTeX • x86-64 Assembly

FRONT-END:
React • Redux • D3.js • Bootstrap • Javascript • HTML • CSS

BACK-END FRAMEWORKS:
Django • Flask • Rails • Node.js

DEPLOYMENT PLATFORMS:
Heroku • AWS

DATABASES:
MongoDB • Firebase • AWS RDS

OTHER:
Git • Bash • Linux • Redis

INTERPERSONAL SKILLS
Leadership • Public Speaking • Written Communications • Project Management • Legislative Relations

WORK EXPERIENCE

PHOTON COMMERCE | Software Engineer Intern
July 2020 - Present | San Francisco, CA
- Worked directly under CEO, led development of AI-powered document (invoices/receipts) scanning web-app using Flask framework and HTML/CSS/Javascript front-end
- Developed payment transfer technology, integrated Stripe, Square, CardConnect, and Bill.com APIs to streamline in-app payment collections/transfers, built responsive payment analytics dashboard using D3.js
- Built management features for supply chain technology web-app in React.js, rewrote object models and data syncing algorithm for Django REST API, cleaned >2000 rows of corrupted customer data using SQL, integrated Airtable API for cloud-database management

LUNCHABLE, INC. AT BERKELEY SKYDECK | Full-Stack Intern
May 2020 – August 2020 | Berkeley, CA
- 6 of 500 applicants selected to join the developer team
- Improved friend-matching algorithm from $O(n^3)$ to $O(n \log n)$ using memoization and dynamic programming, automated algorithm using Celery task-scheduling, integrated with Automate.io and Google Calendar APIs
- Built video-call functionality using Agora.io Developer Kit, implemented real-time chat application via websockets
- Developed REST API with Django Backend, built front-end using React.js, deployed app to Heroku

SHINEWITH, INC. | Marketing and Growth Intern
June 2020 – September 2020 | San Francisco, CA
- Conducted weekly jewelry market analysis presentations and business model evaluation using Google Analytics to CEO
- Authored marketing blog post to power CRM campaign, launched nationwide jewelry marketing campaign to reach potential jewelry partner schools, designed tele-marketing campaign to reach potential partner jewelry artists
- Built marketing leads web-app using Flask framework, wrote web-scraper using ScraPy and Selenium WebDriver to deposit leads to JSON file, integrated Yelp API to source database of enterprise jewelry partners

UNIVERSITY OF CALIFORNIA, SAN FRANCISCO | Research Assistant under Prof. David Erle
May 2018 – September 2019 | San Francisco, CA
- Researched MUC5AC gene enhancer candidate using H3K27ac ChIP-Seq, constructed plasmid with Gibson Assembly and performed PCR daily
- Designed lentiviral transfection/transductions, performed FACS analysis
- Worked with bioinformatics team to perform computational analysis in R/Python/SQL, presented at research conference in UCSF Genentech Hall

AWARDS

2019-2020	top 100 nationally	USA Physics Olympiad Silver Medalist
2019-Present	top 10% nationally	USA Computing Olympiad Gold Division
2019	International	Facebook Hacker Cup Round 1 Qualifier
2017-2020	National	American Invitational Math Exam Qualifier