
SUMMARY

- » Advocate of projects synthesizing work in AI, user-centered design, computer graphics, and psychology.
- » Experienced with full-stack development and HCI research with a keen eye for UX + graphic design.
- » Seeking full-time opportunities in UX design/research, AI research, or software engineering.

EDUCATION

Stanford University

September 2019 - June 2021

Masters of Science Computer Science · 2021

Depths: Human-Computer Interaction + Artificial Intelligence

Georgia Institute of Technology

August 2015 - August 2019

Bachelors of Science · Computer Science · 2019

GPA: 3.83/4.00 (Faculty Honors: 4.00 GPA in Spring 2016, Summer 2016, Spring 2017, & Spring 2018 terms)

Coursework: Machine Learning, Data Structures, Algorithms, Assembly & C, Object-Oriented Programming

EXPERIENCE

Space Exploration Technologies Corp. (SpaceX)

Hawthorne, CA

Software Engineering Intern

September 2017 - December 2017

- » Designed, implemented, tested software solutions · Worked closely with PMs and UX designers
- » Automated supply chain processes in ERP: mitigated legal risk, increased business efficiency
- » Engineered SQL Server + .NET/C# backend that exposed RESTful APIs to AngularJS front-end
- » Saved 1,500+ hr/yr of manual data entry · Led projects now used by all 7,000 employees

Cisco Systems

San Jose, CA

Software Engineering Intern

May 2017 - August 2017

- » Architected, researched, implemented test automation framework for Cisco's Cloud DVR services
- » Developed load testing and analysis framework to generate HTTP traffic and collect relevant statistics
- » Designed AngularJS front-end with Python RESTful API and ELK · Orchestrates Docker containers
- » Saved 10+ hr/wk of manual and error-prone OS/network configuration · Increases engineer efficiency

School of Interactive Computing @ Georgia Institute of Technology

Atlanta, GA

Project Lead + Undergraduate Research Assistant

January 2018 - August 2019

- » Developing and analyzing Augmented Reality applications for intelligent warehouse mgmt. systems
- » Researching responsiveness to notifications on head-worn displays and wearable displays
- » Developing Google Glass apps and Python APIs with Prof. Thad Starner, Contextual Computing Group

Undergraduate Research Assistant

January 2016 - December 2016

- » Developed predictive health analytics for heart disease patients with Professor James Rehg, Wall Lab
- » Used MATLAB and Python to apply DSP + HMMs to on-body sensors to identify concerning behavior

ATSDR @ U.S. Centers for Disease Control and Prevention (CDC)

Atlanta, GA

Technical Consultant

August 2018 - May 2019

- » Researched user requirements, architected, and delivered automated air quality analysis pipeline
- » Drastically reduced time for publishing reports on air quality, assisting CDC in its public health missions
- » Architected and developed desktop application to automate processing data from air quality sensors
- » Worked closely with five other teammates to develop in an Agile method and produce demo videos

School of Mechanical Engineering @ Georgia Institute of Technology

Atlanta, GA

Lead Software Developer

January 2016 - May 2018

- » Built service used by 2,500 students and judges in Georgia Tech's Capstone Design Expo.
- » Integrated user feedback for highly-intuitive UX significantly reducing user onboarding.
- » Collaborated through Git-centered workflows with a tight feedback loop from advisers.
- » Technologies used: Django, PostgreSQL, Git, jQuery, responsive HTML/CSS design.

AWARDS

Best Paper

Singapore

ACM International Symposium on Wearable Computers

October 2018

- » Awarded for research work published to ACM International Symposium on Wearable Computers
- » Studied novel wearable RFID-based verification system for the central process of order picking in logistics

Grand Prize winner

Emory University, Atlanta, GA

HackATL

November 2016

- » Awarded for developing and presenting comprehensive business plan to Atlanta-area venture capitalists
- » Developed wearable tech for on-demand community help in emergency situations on college campuses

Microsoft Prize

Emory University, Atlanta, GA

HackATL

November 2016

- » Won 2nd place in Microsoft Prize category at HackATL, a tech startup hackathon at Emory University.
- » Created hardware prototype for smart watches wearers to shake hands and connect online.

Grace Hopper Conference travel grant

Houston, TX

Google

October 2016

- » 1 / 100 students awarded full scholarship to attend Grace Hopper Celebration of Women in Computing
- » Developed skills based on demonstrated interest/experience in promoting the role of women in computing

PUBLICATIONS

RF-Pick: order picking using a HUD with wearable RFID verification

best paper @ ACM International Symposium on Wearable Computers

January 2018 - October 2018

Order picking accounts for 55% of the annual \$60 billion spent on warehouse operations in the United States. Reducing human-induced errors in the order fulfillment process can save warehouses and distributors significant costs. We investigate a RFID-based verification method wherein wearable RFID scanners, worn on the wrists, scan passive RFID tags mounted on an item's bin as the item is picked; this method is used in conjunction with a head-up display (HUD) to guide the user to the correct item. We compare this RFID verification method to pick-to-light with button verification, pick-to-paper with barcode verification, and pick-to-paper with no verification. We find that pick-to-HUD with RFID verification enables significantly faster picking, provides the lowest error rate, and provides the lowest task workload.

PROJECTS

UX + Graphic + Motion Design (Freelance + Personal Projects)

personal explorations in animation, graphic design, and UX research

December 2018 - present

- » Designed, animated, edited, and published over 40 short videos and 20 high-quality static renders
- » Demonstrates improving skills in animation, modeling, video production, sound mixing, and vector art
- » Continuing to gain mastery of MAXON's Cinema 4D and Adobe's Creative Cloud products
- » Portfolio continues to grow with new original work uploaded every week: <https://instagram.com/p13i.io/>

Remembrance Agent

Library to display contextually-relevant notes based on keyboard input

July 2019 - December 2019

- » Based on concept of a Remembrance Agent (RA) was first outlined by Rhodes and Starner in 1997
- » Designed as system that automatically presents contextually-relevant notes, documents, and contacts
- » Integrates with Google's Gmail, Drive, and Cloud Speech APIs through a Java Swing desktop GUI
- » Logs keystrokes and ambient speech (through Google Cloud APIs) and searches offline cache

Glass Notes for Google Glass

Android, web, and terminal applications to augment memory in class

January 2019 - December 2019

- » Based on system designed by Thad Starner at MIT Media Lab in the late 1990s · redesigned for today
- » Allows for offline note taking using Bluetooth keyboard · periodically syncs to GitHub Gists

dARts

play darts in augmented reality

May 2018

- » Designed interactive experience for collaborative darts game in augmented reality
- » Used iOS frameworks like SceneKit to draw planes/objects into real-world with ARKit

MetroSync

a web app to help musicians rehearse together

May 2018

- » Designed/implemented web app featuring metronome synced across devices aiding in musical practice
- » Developed real-time Web Socket-based app · Shared information between AngularJS front-end, REST API

RichCaptions

symbolic math captions for educational videos

September 2016

- » Designed/implemented UX for captioning and viewing videos with LaTeX-rendered math captions
- » Developed AngularJS front-end leveraging YouTube API · Exposed Django REST API + PostgreSQL

<gt-webdev>

President, Officer, Technical Speaker

January 2016 - December 2018

College of Computing

- » Designed curriculum, lead weekly meetings, hosted one-on-one "office hours" for hundreds of students

ACTIVITIES

SKILLS

PROGRAMMING LANGUAGES

Python, JavaScript / TypeScript, C#, Swift, Java, Kotlin, MATLAB, HTML5 / CSS3, Shell, C / C++

DEVELOPMENT FRAMEWORKS

.NET, iOS, Django + REST, Angular, Ionic, NodeJS, Android, Retrofit, Google Glass Development Kit (GDK)

PACKAGING & DEPLOYMENT

Vagrant, Docker, Heroku, Microsoft Azure, Digital Ocean, Gradle, NuGet

CONTINUOUS INTEGRATION

Git + Git Flow, Jenkins, Travis CI / CircleCI / Wercker

DATABASES

Microsoft SQL Server (T-SQL), PostgreSQL, Redis, MySQL

MACHINE LEARNING

hmm-learn, Digital Signal Processing, MATLAB, scikit-learn

IDES & ENVIRONMENTS

PyCharm, Visual Studio + ReSharper, IntelliJ IDEA, Android Studio

GRAPHIC DESIGN & ANIMATION

Sketch (macOS), Adobe (Illustrator, After Effects, Premiere Pro, Photoshop, Audition, InDesign), MAXON Cinema 4D, Octane Render, World Creator 2 (procedural landscape generation)

HUMAN-COMPUTER INTERACTION

UX Research, UI Design, Study Design (counter-balancing, dual-task, learning effects, etc.), Interview Design, Data Visualization, Statistics

SOFTWARE ENGINEERING CONCEPTS

RESTful API Design, Containerization, Virtualization, Distributed System Design, Message Queues / Task Queues, Micro-Service Design

PORTFOLIO

Online portfolio:

<http://portfolio.p13i.io/>

PDF portfolio:

<http://pdf.portfolio.p13i.io/>

Technical writing:

<http://writing.p13i.io/>