PRAMOD KOTIPALLI

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EDUCATION

Georgia Institute of Technology
Bachelors of Science · Computer Science · 2019
GPA: 3.91/4.00 (Faculty Honors)
Coursework: Machine Learning, Data Structures, Algorithms, Assembly & C, Object-Oriented Programming

EXPERIENCE

Space Exploration Technologies Corp. (SpaceX)
Software Engineering Intern · Hawthorne, CA   Sept. 2017 - Dec. 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
Software Engineering Intern · San Jose, CA   May 2017 - Aug. 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
Project Lead / Undergrad. Research Asst. · Georgia Tech   Jan. 2018 - Current
- 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

Undergrad. Research Asst. · Georgia Tech   Jan. 2016 - Dec. 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

School of Mechanical Engineering
Lead Software Engineer · Georgia Tech   Jan. 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 signicantly reducing user onboarding.
- Collaborated through Git-centered workows with a tight feedback loop from advisers.
- Technologies used: Django, PostgreSQL, Git, jQuery, responsive HTML/CSS design.

PUBLICATIONS

RF-Pick: order picking using a HUD with wearable RFID verification   Oct. 2018
ACM International Symposium on Wearable Computers

- 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.

AWARDS

Best Paper · ACM ISWC 2018   Oct. 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 · HackATL, Emory University   Nov. 2016
- Awarded for developing and presenting a comprehensive business plan to Atlanta-area venture capitalists
- Developed wearable tech for on-demand community help in emergency situations on college campuses

Microsoft Prize, HackATL Microsoft Corporation   Oct. 2015
- 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 · Google   Oct. 2016
- One of 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

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PROJECTS

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
June 2016
- 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
Sept. 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

Handshake: connecting people online through physical handshakes
Oct. 2015
- Developed hardware prototype for smart watches wearers to shake hands and connect online.
- Allows professionals to easily network at conferences and for students to easily connect with recruiters.
- Implemented RESTful API backend with ASP.NET WebAPI and Microsoft SQL hosted on Azure.
- Won 2nd place in Microsoft Prize category at HackATL, a tech startup hackathon at Emory University

SKILLS

LANGUAGES: Python, JavaScript / TypeScript, C#, Swift, Java, MATLAB, HTML5 / CSS3, Shell
FRAMEWORKS: .NET, iOS, Django + REST, Angular, Ionic, NodeJS, Android
PACKAGING / DEPLOYMENT: Vagrant, Docker, Heroku, Microsoft Azure, Digital Ocean
CONTINUOUS INTEGRATION: Git + Git Flow, Jenkins, Travis CI / CircleCI / Wercker
DATABASES: Microsoft SQL Server (T-SQL), PostgreSQL, Redis
MACHINE LEARNING / COMPUTER VISION: hmm-learn, Digital Signal Processing, MATLAB, scikit-learn
IDES / ENVIRONMENTS: PyCharm, Visual Studio + ReSharper, IntelliJ IDEA

ACTIVITIES

<gt-webdev/>, President, Officer, Technical Speaker
Jan. 2016 – Current

iOS Club, Member
Jan. 2016 – Current

Georgia Tech Leading Edge leadership development program
Jan. 2016 – May 2016