PRADYUMNA SHOME

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EDUCATION

University of Illinois at Urbana-Champaign (UIUC)   Champaign-Urbana, IL
B.S. Computer Science, Grainger College of Engineering ·James Scholar ·Dean's List   *Aug 2017 - May 2021*

Relevant Coursework: Machine Learning (CS 446)*, Graduate Algorithms (CS 473)*, Computer Security I (CS 461), Combinatorics (CS 413), Algorithms and Models of Computation (CS 374), System Programming (CS 241), Data Structures (CS 225), Numerical Methods (CS 357), Computer Architecture (CS 233), Data Visualization (CS 296-25)

EXPERIENCE

Blender Lab, NLP Research at Illinois   Urbana, IL
Research Assistant — Advisor: Prof. Heng Ji   *Aug 2019 - Present*
- Generating event schema from multimedia multilingual representations using graph neural nets.

FPSG, Security and Privacy Research at Illinois   Urbana, IL
Research Assistant — Advisor: Prof. Chris Fletcher   *Aug 2019 - Present*
- Identifying security vulnerabilities in the training of deep neural networks (DNNs).
- Investigating the effects of dynamic overclocking and cache compression on memory access times.

Salesforce   San Francisco, CA
Software Engineering Intern, Records Experience, Platform Cloud   *Jun 2019 - Aug 2019*
- Created web app to automatically suggest test plans for a new user story, through natural language processing of the acceptance criteria, using JavaScript (ES2017), Apex, SOQL, Web Components, and Jest for unit tests
- Reduced 13 engineering work days spent manually compiling test plans per sprint planning session
- Developed UI for Einstein Modeling's first Business Card Scanner, that uses OCR and Named Entity Recognition to automate the organization of business contact information.
- Ideated and built intern-matching social app using Python and Jinja, that helps bolster personal connections and surfaces common interests.

Virtusa   New York, NY
Software Engineering Intern, Media & Content Division   *Jul 2018 - Aug 2018*
- Created serverless cloud app and supporting data lake to model, process, and aggregate computer vision data for predictive analytics, using Python, AWS Lambda, Amazon API Gateway, and Amazon DynamoDB
- Implemented reference business intelligence (BI) tool, using NLP generative models (LDA, NTM) to gain insights on social media reactions to popular films and TV shows, using Boto 3, Amazon QuickSight, and Amazon SageMaker

University of Illinois Computer Science   Urbana, IL
Lead Course Assistant, CS 241: System Programming   *Jan 2019 - Present*
- Lead a lab section, conduct office hours, and develop assignments teaching concepts of Linux system programming
- Contribute content to and maintain course textbook and website, and conduct technical and behavioral interviews for prospective course staff members
- Manage course logistics, onboard and mentor new staff, and answer student questions on online Q&A platform

HackIllinois   Urbana, IL
Systems Staff   *Apr 2018 - Feb 2019*
- Developed Go microservices to enable user authentication, authorization, event registration, and notifications via mobile app clients, including CI / CD pipeline (Travis, AWS CodePipeline, Amazon ECS).
- Added features such as user mocking, OAuth single sign-on, multi-tier decision review, templated mail, error handling and CRUD (with MongoDB).
- Created QR code scanner in Android app to manage event check-in and track participant statistics for meals and mini-events.

TECHNICAL SKILLS AND MISCELLANEOUS

- **Programming Languages**: Python, C, Java, Go, C++, Kotlin, HTML, CSS, JavaScript
- **Tools + Frameworks**: Cloud (AWS, Firebase, Travis, Serverless, Docker); Databases (MongoDB, MySQL); Web (React, Node.js, Web Components); Version Control (Git, SVN)

Last updated: October 13th, 2019.