Matthew J. Pozsgai

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EDUCATION

The University of Chicago   **June 2018-December 2020**
Master of Science, Computer Science
- Relevant coursework: Algorithms, Python Programming, Databases, Computer Systems, Applied Software Engineering, Web Development, Advanced C++, Distributed Systems, Cloud Computing

Indiana University Bloomington   **August 2013-May 2017**
Bachelor of Science, Neuroscience
- Teaching Assistant for graduate level course 'Molecular Neuroscience Lab' and undergraduate course 'Introduction to Biology'
- Tutor for introductory biology and chemistry courses

SKILLS

Python | Java | JavaScript | HTML/CSS | AWS | SQL | Flask | React | Git | Docker

WORK EXPERIENCE

Software Development Engineer Intern – Amazon   **June 2020-September 2020**
- Developed customer-facing features for Amazon Fashion using Java and HTML/CSS
- Investigated technical design, created and presented project design documentation to senior engineers and project leadership
- Utilized agile development techniques by participating in sprint planning and communicating issues and progress in daily standups

Research Technologist – Dr. Lucy Godley, **The University of Chicago**   **April 2018-December 2019**
- Utilized the Genome Analysis Toolkit (GATK) command-line tools to process Whole Exome Sequencing (WES) data on a High-Performance Computing Cluster
- Filtered WES data using Python scripts; analyzed WES variant data to characterize molecular progression towards leukemia and identify novel alleles that predispose to hematopoietic disorders
- Handled lab management responsibilities: ordered supplies and equipment, processed and stored patient research samples, curated samples for internal projects/external collaborations
- Improved logistics of patient sample withdrawal by implementing a new organizational system for storing, cataloguing, and retrieving patient research samples
- Trained 10+ undergraduates, technicians, and post-doctoral fellows on various lab techniques, including WES pipeline and analysis, DNA extraction, PCR, and mammalian tissue culture

PROJECTS

Runners-4-Readers.org | *JavaScript - React*   **Spring 2020**
- Designed and built a responsive user interface with JavaScript and React for non-profit organization Runners-4-Readers, allowing users to learn about the organization, make donations, and volunteer

Auction Site | *Python* | Software Engineering, University of Chicago   **Fall 2019**
- Worked in a team of six to build an auction site modeled on eBay, designed with a microservice architecture
- Utilized Django framework and Python for RESTful communication between frontend and microservices
- Containerized services with Docker, and used RabbitMQ to facilitate asynchronous communication between microservices

Distributed Message Queue | *Python* | Distributed Systems, University of Chicago   **Spring 2020**
- Built a distributed message queue accessed through a REST API built in Flask
- Implemented the Raft consensus algorithm to achieve fault-tolerance using a REST API for communication between nodes

Distributed Genome Annotation App | *Python/AWS* | Cloud Computing, University of Chicago   **Spring 2020**
- Built an application running AnnTools genome annotation hosted on AWS using Python Boto3 SDK
- Implemented file processing using load-balanced EC2 instances, stored files using S3 storage, and tracked job status using DynamoDB
- Utilized SQS/SNS Topics for asynchronous communication between services

VOLUNTEER AND MENTORSHIP EXPERIENCE

- Mentor for The University of Chicago Pritzker School of Medicine Experience in Research
- Volunteer at Sunburst Races – Stadium Coordination and Finish Line Operations
- President of the John Adams Volunteer Association – Responsible for leading 200+ students and coordinating philanthropic events