

Jonathan Lee

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EDUCATION

UNIVERSITY OF PENNSYLVANIA

MSE IN COMPUTER SCIENCE

Expected Grad: 2021 | Philadelphia, PA
GPA: 3.86 / 4.0

Relevant Coursework: Applied Machine Learning, Analysis of Algorithms, Distributed Systems, Databases, Big Data Analytics, Computer Vision

UNIVERSITY OF PENNSYLVANIA

BSE IN COMPUTER SCIENCE

Expected Grad: 2021 | Philadelphia, PA
GPA: 3.91 / 4.0

Minors in Mathematics and Economics

Relevant Coursework: Data Structures and Algorithms, Software Engineering and Design, Operating Systems, Linear Algebra, Discrete Math

Activities:

Penn Chamber Music (2019-2020)
Penn Symphony Orchestra (2017-2019)
Game Development (2018-2019)

LINKS

GitHub: [jonatlee](#)
LinkedIn: [jonathanlee457](#)

SKILLS

PROGRAMMING LANGUAGES

Java • Python • Javascript
C • C++ • C# • CSS • OCaml
HTML • Haskell • Ruby • SQL

SOFTWARE

React • React-Native • Redux • Rails
Express.js • Node.js • AWS • MongoDB
Chef.io • Docker • Bazel • Jenkins

VOLUNTEERING

- Volunteer at Food Bank of the Rockies (2019)
- Volunteer at Philabundance (2014-2017)

AWARDS

- Dean's List (2017-2020)
- Inducted into Tau Beta Pi Honor Society (2020)
- Inducted into IEEE-HKN Honor Society (2019)

EXPERIENCE

MONGODB | SOFTWARE ENGINEERING INTERN (REMOTE)

Jun 2020 - Aug 2020

- Modified an internal Python CI test application to be offered as a service, streamlining the process for running the software on new projects
- Responsible for the redesign and migration of the existing code with a focus on stability, efficiency, and correctness
- Key features implemented: deployment as a Kubernetes cronjob, new concurrency model, robust unit test suite, use of Bazel for builds, and integration with Splunk for monitoring and alerting

VISA | DEVOPS SOFTWARE ENGINEERING INTERN

May 2019 - Aug 2019 | Highlands Ranch, CO

- Supported an internal application built to increase efficiency of the server provisioning process (est. 700%)
- Analyzed performance of different data structure options to store server information in MongoDB; researched practicality of using hyper-threading and bulk writing to improve querying performance
- Developed a Chef cookbook to automatically configure MongoDB settings across Linux servers in a replica set

UNIVERSITY OF PENNSYLVANIA | PRIVATE TUTOR

Oct 2018 - Dec 2018 | Philadelphia, PA

- Tutored students in an accelerated introductory programming class, providing learning techniques and code excerpts to prepare students for exams and homework assignments

EMONEY ADVISOR | SOFTWARE ENGINEERING INTERN

Jun 2018 - Aug 2018 | Radnor, PA

- Served as a full-stack developer on a web application for displaying market data (React / C#)

PROJECTS

PENNCLOUD

Nov 2021 - Dec 2021

Cloud service developed in C/C++, featuring Gmail and Dropbox application clones, load-balanced front end servers, and a distributed key-value store with a master node. Implemented the back end API, as well as primary-backup replication, logging, and recovery. Additionally, assisted in developing the master node API and communication protocol.

PENNOS

Oct 2019 - Dec 2019

Unix-based operating system built in C, featuring a kernel scheduler, FAT file system, and a user-facing shell. Led development of the scheduler, and assisted in implementing shell functions.

SPLITME

Jun 2019 - Dec 2019

Mobile group payment application built alongside peers. Led front-end development using React-Native and Redux.

PREDICTING NBA OUTCOMES USING MACHINE LEARNING

Oct 2018 - Dec 2018

Implemented a ranking algorithm (RankSVM) to predict NBA (National Basketball Association) team rankings on raw team statistics. Used Python's scikit-learn ML library.