

# Arnav Nidumolu

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## Education

### University of Massachusetts Amherst

Amherst, MA

*B.S. Computer Science (GPA 4.0)*

*Graduation '24*

- Relevant courses: Discrete mathematics, Operating Systems, Reverse Engineering, Computer Networking, Linear Algebra

## Skills

**Languages:** Python, Java, C/C++, Rust

**Frameworks:** Django, Flask, Scikit-learn, Pytorch, Keras, OpenCV, NLTK, Gensim, Celery

**Other Tools:** AWS, Git, Docker, Jenkins, Travis, OpenShift, OpenStack, Redis, Bash Scripts

## Work Experience

### Amazon

Seattle, WA

*Software Dev Engineer Intern*

*Jun '23 - Aug '23*

- Improved concurrency limitations of AWS Control Tower control operations by 2.5x.
- Implemented distributed queueing mechanism with scalability and fault tolerance.
- Created load and integration tests to evaluate concurrency limits and response times.

### AuCode

Amherst, MA

*Software Enginner Intern*

*Jun '22 - Aug '22*

- Streamlined DevOps workflow with Github actions, Amazon ECS, and Application load balancers.
- Developed web crawling infrastructure with autoscaling capabilities using Redis message queues and Celery workers.
- Automated migration from RDS PostgreSQL to Amazon S3 in parquet format.
- Utilized Gensim/GPT3/Sklearn to train models for topic-modeling and NLP classification tasks.

### Red Hat

Boston, MA

*Research Intern for ChRIS Project*

*Jun '20 - Aug '20*

- Designed monitors with Jenkins to measure system performance and created controls for taking corrective actions.
- Enabled faster runtime for Image detection Proof of Concept with GPU capabilities of Tensorflow.
- Ensured scalable/reliable services by optimizing multithreading and identifying deadlock scenarios.

## Hackathons & Projects

### Smart Notes

HackPHS '19

*Awarded Best Cloud Hack*

*arnavn101.github.io/smartnotes*

- Creates concise summaries and fetches the main topics of the text with Google's Page Rank algorithm.

### Path Finder

HackWHS '19

*Finalist*

*github.com/arnavn101/Path\_Finder*

- Suggests an optimized college path for students based on their skills and academic record with artificial neural networks.

### Quantify

Mar '22

*github.com/GreenPlanet-Capital/Quantify*

- Performs technical analysis and backtesting for financial assets with Alpaca marketstore integration.