Rishi Keshav Pradeep

LinkedIn: linkedin.com/in/keshprad
Github: github.com/keshprad
Email: keshprad@umd.edu
Portfolio: keshprad.github.io

Education

- **University of Maryland, College Park** 08/2021 - 05/2025
  Bachelor of Science - Computer Science + Mathematics *GPA: 3.981/4.0*
  - **Dean's List:** All Semesters
  - **Fellow at StartupShell**
  - **FIRE Research Fellow:** Capital One Machine Learning Group

  Coursework: *Intro to Machine Learning, Intro to Compilers, Advanced Data Structures, Algorithms, Intro to Data Science*

Experience

- **ZipRecruiter** Santa Monica, California
  Software Engineer Intern - Resume Feature Extraction *May 2023 - Present*
  - Leveraged synthetic data generation to transform user profiles to training data mimicing human-labeled resumes.
  - Analyzed scaling law of dataset size & GPU compute resources on performance of ZipRecruiter's resume parser model.
  - Scaled and optimized model to train on 100 times previous training capabilities.
- **Capital One** College Park, Maryland
  Software Engineer Intern - NLP Services *Jan 2023 - Apr 2023*
  - Developed a news recommender system with multi-head self-attention based on Microsoft's NRMS.
  - Created Word2Vec embeddings to represent Capital One-specific vocabulary from millions of relevant articles.
  - Engineered Named Entity Recognition feature and performed hyperparameter tuning to boost AUC performance.
- **University of Maryland, College Park** College Park, Maryland
  Teaching Assistant - Intro to Computer Systems *Aug 2022 - Dec 2022*
  - Taught introductory systems concepts such as C, pointers, dynamic memory, IPC, Assembly.
  - Engaged directly with students by hosting recitation sessions and leading office hours for 500+ students.
  - Provided feedback through grading coding projects, quizzes, and exams.
- **Chaos Genius (YC '20)** Remote
  Software Engineer Intern - Algorithm Development *Jun 2021 - Aug 2021*
  - Developed algorithms for Root Cause Analysis and Anomaly Detection for time series data.
  - Engineered a KPI validation feature, and developed an anomaly severity scoring algorithm.
  - Authored a blog post, "A Brief History of Anomaly Detection".

Projects

- **Brisbane: DirectoryGPT - (LLMs, NLP, Fullstack Dev, Question & Answer System, Prompt Engineering)**
  - Implemented a QA system that creates a vectorized knowledge base of local files for GPT-3.5 using LangChain.
  - Answers questions on any data format seamlessly. Crafts fluent responses, citing exact sources and page numbers.
  - Understands code repositories, large PDFs about research, financial data, housing data, etc.
  - Source Code / Demo.
- **YouTube Mentions - (Fullstack Dev, Python, Svelte, NLP, Named Entity Recognition, Web Scraping)**
  - 2nd Place Media Track @ PickHacks 2021 (Missouri University of Science and Technology).
  - Uses Named Entity Recognition to live annotate YouTube videos with relevant context cards.
  - Source Code / Demo.
- **Outliner for Code Reduction - (Racket, x86, C, Compilers, Programming Languages)**
  - Engineered an outliner to reduce code size for embedded systems by pulling repeated instruction sequences into functions.
  - Designed a Racket (Scheme) compiler to target x86-64. Features: lambda functions, proper tail calls, pattern matching.
- **Best Comeback - (Python, Facial detection, Facial landmarks, dlib, Image Manipulation)**
  - Uses facial landmarks to automatically generate a "Deal With It" gif from an input image.
  - Source Code / Examples
- **Autoscriber - (Fullstack Dev, Python, Vue, MySQL, Speech Recognition, Summarization, NLP)**
  - Progressive Web App for automatic online meeting notes using speech recognition and NLP.
  - Source Code.

Skills

Languages	Python, C, Java, TypeScript, JavaScript, x86, HTML, CSS, Ruby, OCaml, Rust, SQL, R, Lisp
Frameworks	Express.js, React.js, Vue.js, Node.js, FastAPI, Flask, Svelte.js
Tools	Spark, Pandas, Kubernetes, Docker, GIT, NoSQL, PostgreSQL, MySQL, SQLite, MongoDB
Platforms	AWS, Linux, JupyterHub, Web, Firebase

Awards & Certifications

- 2nd Place Media Track @ PickHacks 2021
- Stanford Algorithms Specialization on Coursera
- Akuna Capital Options 101 Course
- Akuna Capital Options 201 Course