# James Harbour

*Resume*

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*"Find what you love and let it kill you" — Charles Bukowski*

I am a second year mathematics and computer science double major at the University of Virginia with a comprehensive undergraduate and graduate-level mathematics background. My primary interests are in operator algerbas and noncommutative geometry.

Following my PhD, I plan to pivot towards the financial sector with a focus on quantitative finance and algorithmic trading.

## Mathematics Experience

- **pre - UVA** Through concurrent dual enrollment at the University of South Florida during high school, I completed the majority of courses in a mathematics major as well as a variety of graduate-level courses.
- **UVA - 1st Year** Took the same mathematics courseload as UVA's 1st year mathematics PhD students (and more). Passed the analysis (real & complex) PhD qualifying exams.
- **UVA - 2nd Year** During the summer, I took an intensive one-on-one reading course with one of my professors. Living expenses were covered by a $2000 grant from the mathematics department. Currently, I am taking three 2nd year PhD-level mathematics courses. I am also a member of the UVA operator theory seminar for graduate students

## Financial Experience

- **Member of UVA's Alternative Investment Fund** An investment club managing a portfolio of $\$50,000$ AUM. Rigorous selection process with multiple interviews and a $3\%$ acceptance rate. This club includes an extensive training program for new members.

## Programming Experience

**Proficient In** Java, C++, Python, Javascript (see my github above)
**Using scientific-computing software (SageMath, Mathematica)** level: medium
**Using document markup software (LaTeX, Office Suite)** level: advanced
**Using Linux** level: medium. (I currently run Arch-Linux on my main laptop)

## Honors and Awards

- Various Grants/Funding
  - $2000 Supporting summer research in operator algebras alongside Dr. Benjamin Hayes.
  - $500 For travel to the Notre Dame workshop in Elliptic Curves and Modular Forms
  - $1000 Supporting travel fees to attend the East Coast Operator Algebras Seminar.
- Mathematics PhD Qualifying Exams
  - I successfully passed the Real and Complex analysis PhD qualifying exams as a freshman.
- College Science Scholar, University of Virginia
  - Selected as one of 18 undergraduates for a research-oriented science-mentoring program.